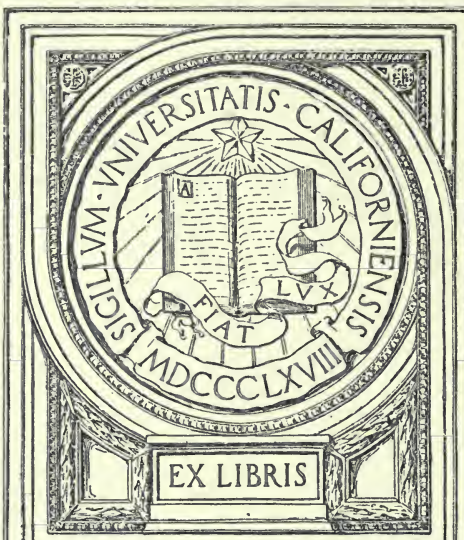

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MILITARY GOVERNMENT

OF

PORTO RICO

FROM

OCTOBER 18, 1898, TO APRIL 30, 1900.

APPENDICES

TO THE

REPORT OF THE MILITARY GOVERNOR.

EPITOME OF REPORTS OF

I. THE SUPERIOR BOARD OF HEALTH.
II. THE BOARD OF CHARITIES.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.

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Compliments of
Major John Van R. Hoff,
Surgeon, U. S. A.

War Department,
Surgeon General's Office,
June 30, 1901.

PORTO RICO

Puerto Rico, Superior Board of Health

FROM

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CONTENTS.

SUPERIOR BOARD OF HEALTH.	Page
Organization	8
Account of receipts and disbursements	9
Extracts from minutes	12
Reports of special committees	35
Regulations promulgated	52
Regulations proposed	71
Vital statistics	82
Climate	117
Diseases	117
Anæmia, diarrheal diseases, acute respiratory diseases, and consumption, tetanus, smallpox, venereal diseases, malarial diseases, lepers, and blind.	
Vaccination	131
Conclusions	133
Appendix A.—Report of committee of examiners	135
Appendix B.—Report of chemist	136
Appendix C.—Report on cemeteries	138
Appendix D.—Report on hurricane	139
Appendix E.—Report of committee on public water supply, etc	141
Appendix F.—Report of committee on interior quarantine, etc	143
Appendix G.—History of sanitation in Porto Rico	144
Appendix H.—History of subdelegation of medicine and surgery	149
Appendix I.—History of subdelegation of pharmacy	154
Appendix J.—Report of San Juan board of health	159
Appendix K.—Report of Ponce board of health and special report	163
Appendix L.—Inspection report of Arecibo	169

BOARD OF CHARITIES.

PART 1.—RELIEF WORK.

Statement of accounts	179
Report of officer detailed to audit accounts of relief work	196
General review of economic conditions	199
The hurricane	204
Outline of the administration	206
Distribution of supplies; report of officer in charge of general supply depot	239
Vital statistics	245
Planters relief with statistics	246
Hospitals in their relation to relief	271
The P. R. central relief committee and the contributions to work of relief	279
The Womans' Aid Society of Porto Rico	289
List of contributors to contribution fund	291
Conclusions	295
Appendix A: Preliminary report of relief work	298
Appendix B: Report of progress	312

PART 2.—INSTITUTIONS.

Charity school and insane asylum	320
Leper hospital	338
Report of chairman of committee of beneficencia	343
Conclusions	351

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LETTER OF SUBMITTAL.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
CHIEF SURGEON'S OFFICE,
San Juan, P. R., June 30, 1900.

SIR: In accordance with the requirements of General Orders from these headquarters, the reports of the superior board of health and the board of charities of Porto Rico, covering the period from their organization to the inauguration of the civil government, are herewith respectfully submitted.

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A., Chief Surgeon Department of Porto Rico.
Some time President of the Superior Board of Health and Board of Charities.

The ADJUTANT-GENERAL,
Department of Porto Rico, San Juan, P. R.

ADMINISTRATION TENT, UNITED STATES PROVISIONAL HOSPITAL, PONCE.

REPORT OF THE SUPERIOR BOARD OF HEALTH OF PORTO RICO.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
CHIEF SURGEON'S OFFICE,
San Juan, June 30, 1900.

SIR: I have the honor to submit the following report covering the general sanitary condition of Porto Rico, the work of the officers and agents of the superior board of health, and a detailed statement of all moneys received and disbursed by the board during the period from June 29, 1899, the day on which the board was constituted, until May 1, 1900, when the military government of Porto Rico ceased to exist:

From the day our forces occupied Porto Rico until June 30, 1899, public sanitation was conducted under emergency conditions. There was not, nor could there well have been, a maturely considered scheme of sanitary regulations. Everything was in a formative state so far as the relations between ourselves and these people were concerned, for we knew as little of their requirements as they knew of how we would meet them. So sanitation here resolved itself down to its simplest form, "policing," where this board found it.

By reference to the file of General Orders, Headquarters Department of Porto Rico, from October 18, 1898, to June 29, 1899, it will be found that but three orders were issued which in any way related to public health. Paragraph 1, General Orders 18, series 1898, abolished the subdelegation of pharmacy; General Orders 37, series 1898, established boards of health in San Juan and the various other towns of the island, and General Orders 28, series 1899, defined the licensing functions of the subdelegation of medicine.

These are exclusive of various orders and circulars relating to the general vaccination executed under direction of the writer as chief surgeon of the department.

An examination of the codified sanitary laws of Porto Rico under the Spanish dominion will determine the fact that those pertaining to exterior quarantine were sufficiently comprehensive, thorough, and modern. They were not, however, vigorously executed and imported diseases frequently gained foothold here.

Guia Oficial General de Puerto Rico, 1897, gives the membership of the Junta Provincial de Sanidad as follows: The governor-general, secretary of the treasury, senior naval officer, vice-president of the provincial commission, alcalde of San Juan, inspector-general of public works, secretary to the governor-general, president of the subdelegation of medicine, president of the subdelegation of pharmacy, director of the quarantine, city engineer of San Juan, and three physicians,

one pharmacist, one lawyer, one delegate to the Spanish Cortes, the chief medical officer of the army, and a veterinarian. This board had a secretary and a comision permanente or executive committee.

I have been unable to learn anything of the accomplishments and records of this board, but its distinguished membership indicates the importance attached to this department of governmental responsibility. In this connection attention is invited to the very interesting résumé of sanitary work under the Spanish Government, compiled by my former colleague, and successor as president of the board, a widely known Porto Rican physican, Dr. Ricardo Hernandez.

It may be said that up to June 30, 1899, much preliminary sanitary work had been done and one stupendous undertaking accomplished. I refer to the vaccination of the entire population, which will be made the subject of a special report.

The experience gained during the execution of the general vaccination, with which was combined a sanitary inspection of the various municipal districts, indicated that the time was at hand when a systematic sanitary organization with a well-considered sanitary code was necessary, whereupon the following communication was addressed:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
CHIEF SURGEON'S OFFICE,
San Juan, June 7, 1899.

SIR: To place and maintain this island on a satisfactory sanitary basis, I have the honor to recommend that a superior board of health be organized, to consist of the senior officers of the Medical Departments of the Army, Navy, and Marine-Hospital Service who may be serving here, of two Porto Rican physicians of acknowledged reputation, a civil engineer, and a secretary. That all the members of the board shall serve without compensation, except the secretary, who shall have a salary of $3,000 per annum, provided that the civilian members of the board shall be allowed $8 per day and 7 cents per mile traveling expenses, when in the performance of sanitary duties required of them by the board or other proper authority.

The duties of the board shall consist in organizing local boards and formulating sanitary laws to be promulgated by proper authority, to see that the laws are obeyed, and that everything possible is done to promote the healthfulness of the island.

Subjects for regulation and control by the proposed superior board of health:

Public water supplies, markets, bakeries, groceries and all food supplies, milk depots, public institutions, schools, asylums, jails, hospitals, barracks, court rooms, theaters, etc., tenement houses, vital statistics, marriages, births, deaths, registration of physicians, dentists, pharmacists, midwives, and undertakers, plumbing, sewering, street cleaning, privies, water-closets, cesspools, etc., nuisances, slaughterhouses, stables, yards, contagious and infectious diseases, trades and factories, undertaking and cemeteries, disinfection, granting of licenses and permits, vaccination, communicable diseases of domestic animals, quarantine.

If this suggestion is approved I would respectfully recommend that the services of Maj. George G. Groff, surgeon, U. S. V., who is about to be mustered out, be secured as secretary of the superior board of health. Major Groff, who was some time president of the State Board of Health of Pennsylvania, is a learned sanitarian and would be invaluable in the organizing and starting of the proposed work.

Very respectfully,

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A., Chief Surgeon.

The ADJUTANT-GENERAL,
Department of Porto Rico, San Juan, P. R.

In accordance with these recommendations, the following order was issued:

GENERAL ORDERS, No. 91.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, June 29, 1899.

I. A superior board of health is hereby constituted for Porto Rico, the authority of which will extend throughout this department, and to which all local boards of health will regularly report.

The board will for the present be composed of six members, as follows: Maj. John Van R. Hoff, surgeon, United States Army, chief surgeon of the department; Surg. Arthur H. Glennan, United States Marine-Hospital Service; Surg. F. W. E. Wieber, United States Navy; Dr. George G. Groff, Dr. Gabriel Ferrer, and Dr. Ricardo Hernandez.

The chief surgeon of the department will act as president of the board and Dr. George G. Groff is appointed secretary and treasurer.

The office of the board will be at these headquarters, where its meetings will ordinarily be held, at such times as may be appointed. Four members will constitute a quorum.

The board will meet as soon as practicable to prepare regulations covering the scope of its work, which will be submitted to the department commander.

II. On and after July 1, 1899, the management and control of the insane asylum at San Juan, now under charge of the bureau of education, will be transferred to the superior board of health of Porto Rico, and the public funds allotted for the support of the asylum will be disbursed and accounted for by the treasurer of the board under its direction.

By command of Brigadier-General Davis:

W. P. HALL,
Adjutant-General.

In addition to the institutional responsibility vested in this board by the foregoing order, Special Orders, No. 142, series 1899, transferred to its care the leper hospital, as follows:

3. On and after July 1, 1899, the management and control of the leper hospital at San Juan will be transferred to the superior board of health of Porto Rico, and the public funds allotted for the support of this hospital will be disbursed and accounted for by the treasurer of the board under its direction.

All of these institutions were transferred to the board of charities, Porto Rico, upon its organization in August, and this board continued its legitimate work.

RECEIPTS AND DISBURSEMENTS.

Accounts of the receipts and disbursements of the superior board of health from the date of its inauguration to April 30, 1900.

LICENSE ACCOUNT.

Received for the issue of licenses, in compliance with General Orders, No. 153, series of 1899.

1899.		
Nov. —.	For issue of 68 licenses, at $5	$340.00
Dec. —.	For issue of 124 licenses, at $5	620.00
Dec. —.	For issue of 11 licenses, at $25	275.00
1900.		
Jan. —.	For issue of 90 licenses, at $1	90.00
Jan. —.	For issue of 169 licenses, at $5	845.00
Feb. 15.	For issue of 49 licenses, at $5	245.00
	For correction of licenses	4.50
		2,419.50

DISBURSEMENTS.

1899.			
Nov. —.	Supplies	$1.70	
Dec. —.	Supplies	335.58	
Dec. —.	Services	200.83	
1900.			
Jan. —.	Supplies	500.60	
Jan. —.	Services	129.90	
Feb. —.	Supplies	30.31	
Feb. —.	Services	125.50	
Feb. —.	Supplies	393.52	
	Services	99.10	

1900.				
Mar. —.	Supplies		$161.10	
	Services		64.67	
Apr. —.	Supplies		113.36	
	Services		6.30	
			2,162.47	
Feb. 28.	Refund to the treasurer of Porto Rico	$46.41		
Mar. 31.	Refund to the treasurer of Porto Rico	.95		
Apr. 30.	Refund to the treasurer of Porto Rico	6.56		
		53.92		
	Refund to individuals for overpayments		40.00	
				$2,202.47
	Balance on deposit with treasurer			217.03

RECAPITULATION.

Received for licenses from November 1, 1899, to April 30, 1900	$2,419.50
Disbursements	2,202.47
Balance of license account on deposit with treasurer	217.03

EXAMINER'S ACCOUNT.

1900.			
Feb. 15.	Fees received for examinations and deposited with treasurer of Porto Rico		$465.00
Feb. 24.	Miscellaneous warrant, treasury draft No. 682		465.00

DISBURSEMENTS.

Feb. 24.	Dr. Ricardo Hernandez, recorder:		
	6 examinations of physicians, at $25		$150.00
	3 examinations of physicians, at $8.33		25.00
	5 examinations of pharmacists, at $12.50		62.50
	2 examinations of dentists, at $12.50		25.00
	4 examinations of practicantes, at $15		60.00
	1 examination of midwife		5.00
			327.50
	Dr. R. M. Ponte, examiner:		
	2 examinations of dentists, at $12.50		25.00
	Dr. P. J. Sallicrup, examiner:		
	3 examinations of physicians, at $8.33		25.00
	Dr. Guillermo Curbelo, examiner:		
	3 examinations of physicians, at $8.33		25.00
	Mr. Domingo Peraza, examiner:		
	5 examinations of pharmacists, at $12.50		62.50
			465.00

OFFICE AND LABORATORY.

1899.		
July 31.	Warrant 37, treasury draft 52	$330.50
Aug. 23.	Warrant 83, treasury draft 44	445.00
Sept. 27.	Warrant 151, treasury draft 257	473.94
Oct. 28.	Warrant 188, treasury draft 318	366.67
Nov. 29.	Warrant 242, treasury draft 421	512.87
Dec. 30.	Warrant 330, treasury draft 531	266.67
1900.		
Jan. 30.	Warrant 377, treasury draft 628	531.50
Feb. 26.	Warrant 417, treasury draft 689	272.75
Mar. 3.	Warrant 441, treasury draft 689	95.83
Mar. 30.	Warrant 481, treasury draft 792	551.60
Apr. 28.	Warrant 535, treasury draft 885	1,194.63
		5,041.96

DISBURSEMENTS.

1899.				
July	31.	Supplies	$42.51	
		Services	268.98	
Aug.	30.	Supplies	66.01	
		Services	367.27	
Sept.	30.	Supplies	71.18	
		Services	402.76	
Oct.	30.	Supplies	33.99	
		Services	295.17	
Nov.	30.	Supplies	131.29	
		Services	308.67	
Dec.	31.	Supplies	8.55	
		Services	256.67	
Jan.	31.	Supplies	275.55	
		Services	266.67	
Feb.	28.	Supplies	39.33	
		Supplies	31.40	
		Services	274.93	
		Services	101.83	
Mar.	31.	Supplies	5.64	
		Services	194.83	
		Services	338.10	
Apr.	30.	Supplies	617.00	
		Supplies	255.89	
		Services	150.00	
		Services	172.50	
			4,976.72	
Feb.	28.	Refund to treasurer	52.97	
Apr.	30.	Refund to treasurer	12.27	
			65.24	
				$5,041.99

VACCINE STATION.

1899.				
Aug.	23.	Warrant 82, treasury draft 143		$132.00
Sept.	30.	Warrant 151, treasury draft 257		291.06
Oct.	22.	Warrant 158, treasury draft		286.77
Nov.	26.	Warrant 242, treasury draft 421		277.22
Dec.	30.	Warrant 330, treasury draft 531		247.57
Jan.	26.	Warrant 377, treasury draft 628		206.04
Feb.	26.	Warrant 417, treasury draft 689		197.07
Mar.	28.	Warrant 481, treasury draft 792		117.96
Apr.	28.	Warrant 535, treasury draft 885		112.14
				1,867.83
Aug.	31.	Refund to the treasurer	$17.08	
Mar.	31.	Refund to the treasurer	3.86	
Apr.	30.	Refund to the treasurer	6.92	
Mar.	12.	Refund to the treasurer	1.19	
			29.05	

DISBURSEMENTS.

Aug.	31.	Supplies	$34.52
		Services	80.40
Sept.	30.	Supplies	53.57
		Services	100.78
Oct.	30.	Supplies	177.62
		Services	114.97
Nov.	30.	Supplies	74.07
		Services	223.75
Dec.	30.	Supplies	204.22
		Services	90.07

1900.				
Jan. 31.	Supplies	$129.61		
	Services	118.66		
Feb. 28.	Supplies	86.33		
	Services	130.69		
Mar. 31.	Supplies	35.88		
	Services	78.22		
Apr. 30.	Supplies	27.00		
	Services	78.22		
			$1,838.78	
				$1,867.83

RECAPITULATION.

Offices of board and laboratory:		
Supplies		$1,578.34
Services		3,398.38
		4,976.72
Vaccine station:		
Supplies	$823.02	
Services	1,015.76	
		1,833.78
Total disbursements		6,815.50

EXTRACTS FROM MINUTES.

[From the minutes of the meetings of the superior board of health, Porto Rico, from the date of the organization, July 3, 1899, to the inauguration of the civil government, May 1, 1900.]

The superior board of health of Porto Rico, organized in accordance with General Orders, No. 91, series 1899, held its first meeting at the offices of the board, No. 5 Fortaleza, San Juan, at 3 p. m., July 3, 1899. All members named in the order being present, the meeting was called to order by the president, Maj. John Van R. Hoff, surgeon, U. S. A., chief surgeon Department of Porto Rico.

An outline of the duties proposed for the board was submitted by the president, discussed, approved, and directed to be forwarded to the military governor with the recommendation that the same be published in general orders. It may be well to add that the recommendation was accepted as follows:

GENERAL ORDERS, No. 102. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, July 18, 1899.*

For the information of all concerned, the following orders are published relative to the duties of the superior board of health constituted for the island of Porto Rico by General Orders, No. 91, current series, these headquarters:

It shall be the duty of the superior board of health—

I. To have general supervision of all the interests of the public health of the island, and to especially study its vital statistics.

II. To make sanitary investigations and inquiries respecting the causes of disease, and especially of epidemic diseases, including those of domestic animals, the sources of mortality, and the effects of localities, employments, condition, habits, food, beverages, and medicine on the health of the people.

III. To disseminate information upon these and similar subjects among the people.

IV. To institute sanitary inspections of all public institutions or places throughout the island.

V. To consider and report to the governor upon the plans and specifications for all new water supplies, drainage, sewerage plants, and public institutions of all kinds or for alterations in such public works or institutions. Copies of such plans and specifications will be filed in the office of the board.

VI. To suggest amendments to the sanitary laws of the island and to have power to enforce such regulations as will tend to limit the progress of epidemic diseases.

VII. To have power and authority to order nuisances or the causes of any special diseases or mortality to be abated and removed, and to enforce such interior quarantine regulations as said board shall direct in cities, municipalities, districts, or places

where there are no local boards of health, or in case the sanitary laws or regulations should be inoperative in places where boards of health or health officers exist. Any person who shall fail to obey, or shall violate such order, shall upon conviction be sentenced to pay a fine of not more than $100 or be imprisoned for not more than sixty days at the discretion of the court.

VIII. To have general supervision of the insular system of registration of births, marriages, and deaths, and of prevalent diseases, and to insure the faithful recording of the same; also to prepare the necessary methods, forms, and blanks for obtaining and preserving such statistics.

IX. To prepare regulations governing the admittance of persons to the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming, and undertaking, and to enforce such regulations as are adopted by the government of the island.

X. To inquire into and report upon violations of laws governing the purity and wholesomeness of foods, drinks, drugs, and medicines. To submit, through the governor of the island, regulations to control offensive and dangerous occupations and to report upon and make recommendations regarding any special sources of danger to life or person.

XI. To require all health officers and health boards throughout the island to forward to the superior board copies of all their reports and publications and such other sanitary information as it may request. To require reports and information concerning such matters or particulars in respect to which it may, in its opinion, need information for the proper discharge of its duties, from all public dispensaries, hospitals, asylums, infirmaries, prisons, penitentiaries, schools, and from the managers, principals, and officers thereof, and from all other public institutions, their officers and managers, and from the proprietors, managers, lessees, and occupants of all places of public resort throughout the island.

XII. To from time to time engage suitable persons to render sanitary service or to make or supervise practical and scientific investigations and examinations requiring expert skill, and to prepare plans and reports relating thereto. This regulation must not be considered as authorizing any expenditure beyond the sum specifically allotted to the board for such purposes in the annual budget. When the cost of such investigations exceeds the allotment, special authority for the expenditure must be obtained from the governor of the island.

XIII. To make a written report to the governor on or before June 30 of each year, covering the general sanitary conditions of Porto Rico, the work of the officers and agents of the board, and a detailed statement by the treasurer of all moneys received and disbursed during the year. To submit special reports from time to time as the occasion may demand.

XIV. To especially supervise subjects directly relating to public health, as follows:

1. Public water supplies.
2. Markets, bakeries, groceries, and milk depots.
3. The purity and wholesomeness of all foods, drinks, liquors, drugs, and medicines.
4. Public institutions, schools, asylums, jails, hospitals, dispensaries, barracks, court rooms, theaters, etc.
5. Tenement houses.
6. Vital statistics, marriages, births, deaths.
7. Licensing and registration of physicians and surgeons, dentists, pharmacists, midwives, undertakers, etc.
8. Plumbing and registration of plumbers.
9. Sewering.
10. Street cleaning.
11. Privies, water-closets, cesspools, etc.
12. Nuisances.
13. Slaughterhouses, stables, yards.
14. Contagious and infectious diseases.
15. Trades, factories, and industries offensive or injurious to the public health.
16. Undertaking and cemeteries.
17. Disinfection.
18. Licenses and permits.
19. Vaccination and the production of vaccine virus.
20. Diseases of domestic animals communicable to man.
21. Interior quarantine.
22. Poisons, explosives, and special sources of danger to life and person.
23. Sanitary supervision of travel and traffic.

XV. To institute prosecutions for violations of the provisions of this order in the nearest local court, or in the United States provisional court, as the governor may direct.

By command of Brigadier-General Davis.

W. P. Hall, *Adjutant-General.*

The lunatic asylum, which heretofore had been under the charge of the board of education, having been transferred to the board, the president called for the reading of a report on a sanitary inspection of the building made by Maj. G. G. Gróff, surgeon, U. S. V., by direction of the chief surgeon. (See p. 35.)

After discussion of the report and due deliberation, upon motion, a committee, consisting of Surgeon Wieber, U. S. N., and Drs. Ferrer and Hernandez, was appointed by the chair to further investigate and report upon the present condition and requirements of the insane asylum, the report to be submitted at the next meeting of the board.

On motion, the following temporary committees were appointed:

1. Executive—to have charge of rules, regulations, and finance: The president.
2. Committee on public water supplies, drainage, sewerage, public institutions, and school hygiene: Surg. F. W. F. Wieber, U. S. N.
3. Registration and vital statistics, trades and occupations prejudicial to the public health, licenses and permits, all nuisances and offensive industries, tenement houses, street cleaning, vaccine station, and vaccination: The secretary.
4. Inspection of foods and drinks, drugs, poisons, explosives, and other special sources of danger to life and limb: Dr. Gabriel Ferrer.
5. Regulation of the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming and undertaking, cemeteries: Dr. Ricardo Hernandez.
6. Preventable and communicable diseases of domestic animals communicable to man (interior quarantine): Surg. A. H. Glennan, U. S. M. H. S.

The president and secretary were directed to prepare rules and regulations to perfect the organization of the board and prescribing the duties of the officers and standing committees.

The board then, at 6 p. m., adjourned to meet at 8 p. m. July 6, 1899.

JULY 6, 1899.

A meeting of the board was called to order in the board room at 8 o'clock this evening, all members being present. The minutes of the last meeting were read and approved, and the board proceeded to the consideration and discussion of the proposed by-laws, which were read by the president. Each paragraph was considered separately, and, after suggestion, alteration, and due deliberation, all were adopted as set forth herein. (See p. 36.)

Surg. F. W. F. Wieber, U. S. N., chairman of a committee to investigate the condition and needs of the lunatic asylum, presented a report. (See p. 37.)

After a full discussion of this report, entered into by every member of the board, Surgeon Glennan introduced the following motion, which was seconded by Surgeon Wieber and adopted.

That the present committee on the insane asylum be continued, temporarily, to ascertain the feasibility of obtaining a building in Santurce; also to make arrangements for continuing the maintenance and medical treatment of the inmates, and to submit a report thereon to the board at a special meeting to be called by the president.

SAN JUAN, P. R., *July 10, 1899.*

A meeting of the superior board of health was held in the office of the board at 8 p. m., to hear report of the special committee on insane asylum.

The meeting was called to order by the president of the board. The other members present were Surg. F. W. F. Wieber, U. S. N., Dr. Ricardo Hernandez, Dr. Gabriel Ferrer, and Dr. George G. Groff.

The minutes of the last meeting were read and adopted.

The special committee on the insane asylum made report that the building of "Escuela Pia" could be obtained.

The report was accepted and the committee was continued to enable it to complete the report in the following particulars:

1. To ascertain the cost of repairs on the institute building in Santurce.
2. Cost of repairs to the building at present occupied.
3. Cost of the new building, to be erected at a suitable place in the country.

Dr. Wieber made the following motion, which was seconded by Dr. Groff:

Resolved, That a committee of one be appointed to make a report on the leper hospital, its present condition, and what improvements are necessary to make it an ideal hospital.

Motion was adopted.

The chair appointed Surgeon Glennan as this committee.

The president introduced the subject of continuing the work of vaccination not yet completed. He called attention to the necessity for a vaccine farm or institute near San Juan, where virus could be produced during the year.

Dr. Wieber moved, and Dr. Hernandez seconded the motion, that the president of the board, together with the secretary, be appointed a committee on vaccination, with authority to seek a proper locality for a farm, and to carry on the work of vaccination wherever this should be necessary.

Motion adopted.

The secretary was also authorized to continue the preparation of a list of health officers for the different municipalities of the island.

SAN JUAN, P. R., *July 18, 1899.*

A meeting of the superior board of health was held at the office of the board this evening. The meeting was called to order by the president. The members present were the president, Drs. Glennan, Wieber, Hernandez, and Groff. The minutes of the last meeting were read and adopted.

The secretary submitted a draft of proposed general sanitary regulations, which were read and discussed paragraph by paragraph.[1]

By direction of the president of the board the following communication was sent to the subdelegation of medicine and surgery of Porto Rico:

SIR: You are hereby authorized to conduct examinations of practicantes and midwives under the rules and regulations which existed before the American occupation until further notice. The results of such examinations you will report to the superior board of health for its approval.

Very respectfully,

GEORGE G. GROFF,
Secretary and Treasurer Superior Board of Health.

Dr. FRANCISCO R. DE GOENAGA,
President of the Subdelegation of Medicine, Porto Rico.

On July 17 the secretary received a communication from Dr. Goenaga, accompanied by a diploma or license, indicating that the subdelegation of medicine and surgery had examined and licensed Luis Rodriguez Miranda, of the city of Utuado.

[1] They remained under the consideration of the board for several meetings, until finally adopted and submitted to the military governor for approval and publication.

A communication was received from the governor in reference to a report from Dr. Delvalle submitting plans and estimates for a bacteriological institute, which was referred to a committee consisting of Drs. Glennan, Ferrer, and Hernandez for report. (See p. 42.)

Complaints were received as follows:

1. Of an open sewer near San Francisco Barracks.
2. Unsanitary conditions in Cayey, by Dr. H. A. Eberle, post surgeon.
3. Of a stable erected near a dwelling in Aguas Buenas.
4. Of a public vaccinator for charging for vaccination in Camuy.

It was suggested that the secretary be authorized to employ one person as accountant and clerk, and one as stenographer and clerk, and that the salaries of these persons be fixed by the board.

The secretary was directed to make a requisition on the auditor of the island for $221.60, Porto Rican currency, the estimated expenses of the leper hospital for the month of July.

The action of the president and secretary in reference to the examination of practicantes and midwives by the subdelegation of medicine was approved by the board.

Surg. A. H. Glennan, M. H. S., submitted an interesting and valuable report on the present condition of the leper asylum, etc. (see p. 39), which was read, discussed, and accepted.

Surg. F. W. F. Wieber, U. S. N., chairman of a committee on the insane asylum, submitted a report on the necessary alterations in connection with the present asylum and the plan of changing its location to the "Escuela Pia," Santurce, with the estimate of cost, etc. (see p. 40), which was duly considered and accepted.

San Juan, P. R., *July 19, 1899.*

A meeting of the superior board of health was held this evening in its office at 8 o'clock.

The meeting was called to order by the president.

All the members of the board were present. The minutes of the last meeting were adopted as recorded.

In view of the present insufficient accommodation in the Manicomia, the president laid before the board the question of the propriety of asking the governor to temporarily set aside a portion of the city jail for the overflow from the insane asylum until other provisions for these people could be made.

A motion was made by Surgeon Wieber, seconded by Surgeon Glennan, that the president request a portion of the city jail for the purpose named. It was carried.

After discussion a motion was adopted authorizing the chair to appoint Drs. Wieber and Hernandez a permanent committee on the insane asylum, and Drs. Glennan and Ferrer a permanent committee on the leper asylum.

San Juan, P. R., *July 20, 1899.*

A meeting of the superior board of health was called to order this afternoon at 4.30 o'clock on board the launch *Borinquen*. The members of the board were present except Dr. G. Ferrer.

The order of business was the consideration of the proposed rules and regulations of the board and a visit to Punta Salinas to inspect same with a view of ascertaining its desirability as a location for the

leper asylum. Owing to the roughness of the water and the pilot being unable to discover any landing place, the inspection of the point was not accomplished.

SAN JUAN, P. R., *July 21–22, 1899.*

Meetings of the board were held at 8 p. m. All the members were present. Special order of the meetings was the consideration of the rules and regulations, all of which were, after mature deliberation, adopted and ordered to be submitted for the approval of the military governor.

SAN JUAN, P. R., *August 3, 1899.*

A meeting of the superior board of health was held at 8 o'clock this evening in the office of the board, the president in the chair. All the members of the board present.

The following report of the secretary was read:

SAN JUAN, P. R., *August 2, 1899.*

SIR: A report has been received from the attending physician of the leper asylum, which shows 14 patients during the month in that institution. This report makes no mention of any incidental sickness or of sanitary condition of that institution. It is suggested that the physician in future be asked to report monthly on these matters and also upon the efficiency of the employees of the institution.

Two weekly reports have been received from the attending physician of the insane asylum. The latest of these reports, for the week beginning July 23, shows 126 patients in the institution. During the week 1 patient was discharged and 1 died. This report does not refer to incidental sickness of patients, to the sanitary condition of the institution, to efficiency of employees, or to amount or quality of food received. It is suggested:

First. That the attending physican at the insane asylum make to the executive committee a weekly report covering the sanitary condition of that institution, with recommendations, and also report on quality and quantity of food supply.

Second. That he make a monthly report on the efficiency of the personnel of the institution, with recommendations.

Third. That in cases requiring immediate action special reports be made as occasion may demand.

Two very pressing applications for admission to the insane asylum are at the present time on file in this office from the city of San Juan, a man confined in the jail, who by his noise prevents the prisoners from sleeping, and a woman in the Puerta Tierra suffering from acute mania, in the care of her family, who find it almost impossible to control her. It is urged that every exertion be made to increase the accommodations of the asylum in order to provide for these and equally urgent cases.

It is known that many of the public institutions on the island are in a bad sanitary condition. This is especially true of the jails. These institutions have for hundreds of years been recognized as pest spots, in every community where they have existed. Those in Porto Rico are not an exception to the rule.

These institutions, it is understood, have now passed under control of the prison board. Being public institutions they should be so conducted as to afford an example in modern sanitation. It is urged that the present commission be requested to overhaul each and every one of the jails in Porto Rico, whitewashing, scouring, and disinfecting them, so that they will not longer be a menace to the whole population. It is urged that in case there is a public water supply, it be introduced into the prison and modern water-closets be supplied. It is recommended that this work be begun at once in the city prison.

It has been understood that the work of completing the vaccination of the people of Porto Rico will be taken up by the superior board of health, and the president and secretary have been authorized to look for a suitable location for a vaccine station. The buildings of the old institute Agronomica, near Martin Pena Station, have been examined and are found quite suitable, but the agent of the party owning the land asks a rental for the same which amounts to about 10 per cent interest on the value of the same and will give no satisfactory assurance that he will furnish cattle. The farm of Mr. Paul Van Sickel, near Bayamon, has also been examined. This farm is an old sugar plantation. The buildings are all falling into decay. Everywhere there is a sickly odor of wood indicating dry rot, mingled with that of the

urine of 300 cows and 150 calves. There are now no buildings on these premises suitable for use in vaccination. Mr. Van Sickel promises to furnish such animals of suitable age to the extent of his capacity, about 135 head. He has not to this time stated definitely what rent he wishes for his buildings and the land necessary.

There is one other alternative, Mr. Santiago Seijo of Arecibo, who has been producing virus for the last twenty years. He understands thoroughly how to produce it, and has the confidence of his neighbors, so that he assures me that there is no trouble at all about his getting the cattle needed. Mr. Seijo has presented an estimate, in which he offers to produce 1,000 points each day at the cost to the board of 15 pesos per day. The board will need but 500 points per day and this estimate can be reduced. Action should be taken upon this matter so that the production of virus may begin at once.

There are upon the island several thousand unvaccinated people. Some plan must be devised by which these people shall be made immune to smallpox. Your secretary at first thought that the best plan would be to have each municipal physician do the work, paying him a small sum, say 10 centavos, for each vaccination. But later he has thought that it would be best to send into those districts not reached by the vaccinators in the progress of the work heretofore men who have been found honest and capable, and who can be obtained for a reasonable compensation. Thus in the Arecibo division, the mountainous portions of Utuado, Ciales, and Morovis have not yet been thoroughly vaccinated. In that division reside two practicantes of energy and honesty. They can probably be secured at a monthly salary of $40, or possibly $50. It is recommended that those portions of the island not yet vaccinated be covered in this way, and that the money to pay the men doing the work be secured by an appropriation of the funds returned to the insular treasury when the work of vaccination closed June 30.

For vaccinating new-born babes and the scattered cases which exist in every community no better plan is suggested than that it be done by the municipal physicians, who must be paid by the municipalities. This board furnishes free virus. The organization of local boards of health should receive early attention. It has been thought by your secretary that these boards should at present be organized only in the larger cities of Porto Rico, while for the smaller places, certainly for this year, better work will be secured by appointing health officers or sanitary inspectors who shall be responsible to this board. In the smaller towns, even in the most advanced of our States, it has been heretofore found almost impossible to secure five or six men who have any real interest in sanitary affairs. The result is that although local boards are appointed, good work can not be obtained from them. But when the superior board of health has its own representative in each municipality, what it desires done can be accomplished. This health officer or sanitary inspector should be a physician or intelligent practicante, the best man who can be found in each municipality, and the experience gained in the work of vaccination will be of some aid in securing the right men for these positions. It is quite certain that the office, while largely honorary, will be highly valued. Indeed your secretary has received already several letters asking for these appointments. An inspector may be paid a yearly salary or can be paid a per diem for each inspection made and report rendered. It is suggested that at first a trial be made of paying for the work done from 7 to 8 pesos a day. A monthly report should be asked of each inspector as to the sanitary condition of his district. A small amount of stationery with the heading of the superior board of health should be sent to each inspector. Certificates of appointment should be made at an early date.

At present the municipal judge of each municipality sends a report, more or less full, of the vital statistics of his district for each month. The alcalde also sends a letter each month stating the general condition of health in his district. It is thought that these avenues of communication should be maintained for the present, but in the case of deaths much fuller records are desirable. Your secretary has a form of report which he asks to have printed and placed in the hands of all municipal judges and all physicians on the island, asking that returns be made upon these blanks. In this way the persons who make these reports will gradually become accustomed to present them in a better form.

The alcalde of Quebradillas reports that there are four cases of typhoid fever in his municipality and that he has taken the necessary precautions to prevent the spread of same. It has come to the knowledge of your secretary in several indirect ways that there is a large amount of dysentery in the municipality of Utuado. While the work of vaccination was yet in progress a letter was received stating that there had been 1,200 deaths from this cause in that municipality.

The control of sanitation in the tenement houses of the larger cities of Porto Rico must soon receive attention from this board. The secretary presents a scheme for

issuing a permit to both owner and tenant each time there is a change of residence by an occupant of a tenement house.

A complaint by citizens of San Juan, in reference to annoyance at bathing grounds at Santurce, from waste of city, is presented through Dr. M. E. Hughes, president of San Juan board of health.

Bids have been asked from four of the leading printers of San Juan for printing the regulations of the board. They all wish to see the translation before taking action, and so far but one satisfactory bid has been received.

The proposed rules and regulations of the board have been returned from the commanding general with the following indorsement:

"Respectfully returned to the president of the superior board of health, San Juan, P. R.: The translation of the rules and regulations now in force upon this island upon the subjects covered by these proposed regulations is desired in connection with them, in order to ascertain what changes the adoption of these regulations would bring about."

"By command of Brigadier-General Davis."

Your secretary has made diligent inquiry to discover what sanitary regulations are recognized as in force at the present time, and the best information that he can secure is that the sanitary laws of the island have never been codified and published. It would seem that each governor-general issued such regulations as appeared to him best and the exigencies of the case demanded. About four years ago the then governor-general, J. Gamir, appointed a commission of Spanish and Porto Rican physicians to codify existing sanitary regulations. This commission performed its duties, but before the publication of the proposed regulations the governor-general died of yellow fever and the matter was suspended. An effort has been made to discover these manuscript regulations, but so far without success. It is possible that they have, with other papers, been shipped to the United States.

The various topics of the report were discussed and the necessary action taken.

The committee on the leper asylum was authorized to prepare and have printed forms and blanks for weekly and monthly sanitary reports.

The committee on the insane asylum was authorized to prepare blank forms for weekly and monthly sanitary reports.

The special committee on finding a place for the vaccine farm was authorized to continue its investigation.

The suggestion that the work of vaccination be carried out in those districts not reached by the vaccinators previous to June 30, and that the governor be asked to appropriate such unused moneys as were turned into the treasury from the former vaccination fund, was adopted.

The secretary was directed to prepare a list of all the municipalities in which at present there exist boards of health, or health officers, and also the municipalities where sanitary inspectors should be appointed.

The secretary was directed to address a communication to the alcalde of Utuado, inclosing a notice of an excessive amount of sickness in his district, taken from La Correspondencia, and to request him to make a report upon the sanitary condition of the municipality.

Complaints as to the sanitary condition of the garbage dump maintained by the city of San Juan at Puerta de Tierra were received from Dr. M. E. Hughes, health officer, San Juan, and also from the alcalde of the same city. The board ordered that a committee be appointed to investigate and report on the complaints. The president appointed on this committee Drs. Glennan and Hernandez.

It was agreed at this meeting that the services of the barber at the leper asylum should be discontinued. It was agreed that all payment of salaries by this board be in United States currency, without any increase in the present rates of payment.

At this meeting a monthly schedule of wages to be paid at the insane asylum, amounting to $485, was adopted, as follows:

Attending physician	$100
Practicante	50
One chief attendant	35
One assistant to chief attendant	30
Seven Sisters of Charity, at $15	105
Three first-class assistants, at $25	75
Three second-class assistants, at $20	60
Three servants, at $10	30

An estimate of the expenses for the insane asylum for July was adopted, amounting to $1,072.63. The secretary was authorized to secure proposals for printing the regulations of the board. The president of the board was requested to secure authority from the governor-general to employ Mr. F. H. Janes, architect, to draw plans and make estimates for repairs at the insane asylum, and to supervise the work.

SAN JUAN, P. R., *August 10, 1899.*

A meeting of the superior board of health was held this evening at 8 o'clock in the office of the board.

The president in the chair. The members were all present. The minutes of the last meeting were read and approved.

The president announced the organization this day of a board of public charities for the island of Porto Rico, stating that this board would relieve the superior board of health of the care of the insane asylum and the leper hospital (the latter destroyed by the hurricane), which would enable the latter to devote its attention more fully to its proper functions.

The report of the special committee on the leper asylum was read and fully discussed by the board.

SAN JUAN, P. R., *August 10, 1899.*

GENTLEMEN: In obedience to the instructions of the executive committee of this board I have the honor to report that, accompanied by Dr. Pedro del Valle, assistant quarantine officer, I visited Miraflores this morning with a view of ascertaining its fitness for a quarantine detention station and the cession of Cabras Island for the housing of the leper colony.

Miraflores is sufficiently isolated, is located much nearer to the vessels when anchored at the quarantine grounds, and the transfer of passengers, especially women and children, can be made in all kinds of weather.

The steam disinfecting chamber, the only heavy articles to be removed, can be readily lightered and housed at the base of the old powder wharf, in a more useful location. A frame structure is necessary for this purpose, and for use also as a baggage room.

Some windows and doors will be required to be cut in the magazine building, a concrete floor laid, and light partitions constructed to separate the sexes. The small building near the magazine, formerly used by the guard, will answer for executive and keepers' quarters, while another one located some distance to the east is suitable for an isolation hospital.

I understand that the spring is not visited by small boats, but that they obtain their fresh-water supply near San Antonio Bridge.

All of the buildings have been stripped of windows and doors, but it is roughly estimated that for the same amount of money Miraflores could be placed in an equally good condition for quarantine purposes as would be required upon Cabras Island, especially since the large frame warehouse has been razed and the disinfecting house badly damaged by the storm.

For the purpose of a leper colony, however, the demolished buildings would not be required, and those remaining would only need a few minor repairs. The location of Cabras Island, too, is sufficiently approachable to furnish supplies and medical attendance when necessary.

Respectfully submitted.

A. H. GLENNAN,
United States Marine-Hospital Service.

THE SUPERIOR BOARD OF HEALTH OF PORTO RICO,
San Juan, P. R.

After full discussion, it was unanimously agreed to recommend Miraflores as a provisional place for detention and quarantine, and the assignment of Cabras Island to the leper colony.

The consideration of appointment of sanitary inspectors for the island to report on all sanitary matters which might need immediate attention, owing to the recent destructive hurricane, was next considered.

The secretary was directed to mail the following letter, with penalty envelope, to every sanitary inspector without delay:

San Juan, P. R., *August 10, 1899.*

My Dear Doctor: The superior board of health of Porto Rico during the completion of its organization throughout the island is anxious to be kept constantly informed of the current sanitary condition of the people.

Placing confidence in your intelligence and patriotism, at this trying time, it asks you to make a daily report on the sanitary condition of your municipality, giving special attention to the people in the country districts, remote from the main roads of communication.

In your first letter please state:

First. How many lives were lost in the hurricane in your municipality?

Second. How many houses were destroyed?

Third. What is the present food supply, and how long will it last?

Fourth. How are the homeless people housed, and how long will it take to restore their houses?

Fifth. What sanitary precautions should be taken at once?

Please write fully and use the inclosed envelope for reply.

Very respectfully,

Geo. G. Groff, *Secretary.*

The subject of permanent committees of the board was considered. After discussion, it was moved by Dr. Glennan and seconded by Dr. Groff that six permanent committees be appointed and that the president name the committees. The motion was approved.

STANDING COMMITTEES OF THE BOARD.

1. Executive—to have charge of rules, regulations, and finance: The president.
2. Committee on public water supplies, drainage, sewerage, public institutions, and school hygiene: Surg. F. W. F. Wieber, U. S. N.
3. Registration and vital statistics, trades and occupations prejudicial to the public health, licenses and permits; all nuisances and offensive industries, tenement houses, street cleaning, vaccine station and vaccination: The secretary.
4. Inspection of foods and drinks, drugs, poisons, explosives, and other special sources of danger to life and limb: Dr. Gabriel Ferrer.
5. Regulation of the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming and undertaking, cemeteries: Dr. Ricardo Hernandez.
6. Preventable and communicable diseases, diseases of domestic animals communicable to men, interior quarantine: Surg. A. H. Glennan, U. S. M. H. S.

A motion was adopted to add the subject of interior quarantine to the subject pertaining to the sixth committee.

The subject of the regulation of prostitution in the towns in which military posts are established was brought before the board by the president. After full discussion, the existing regulations in the city of San Juan were referred to Drs. Hernandez and Ferrer for examination and report to the board.

San Juan, P. R., *August 15, 1899.*

A meeting of the board was held this evening. The president in the chair. All the members present except Dr. Ferrer. The minutes of the last meeting were read and adopted. The following communica-

tion, addressed by the president of the board to the alcaldes of the island, was read:

SAN JUAN, P. R., *August 15, 1899.*

The attention of the alcaldes is invited to the immediate necessity for cleaning up every town in their districts and putting everything in the best sanitary condition. This will give work to the idle and prevent sickness. Every able-bodied man who is not otherwise engaged should at once be put at this work. It is especially recommended that every dead body, whether man or beast, be immediately buried.

By order of the superior board of health.

JOHN VAN R. HOFF,
President.

A communication from the alcalde of Utuado, in reply to a letter addressed to him by the secretary of the board, states that there is a large amount of sickness in his municipality; that from June 1 to July 1 there had been apparently 659 more deaths than births. The prevailing diseases were dysentery and anemia. He knows of no cause for the exceptional amount of sickness, unless it be the poverty of the people. The secretary was directed to address a letter to the alcalde, calling his attention to the necessity for taking special care in reference to the purity of the drinking water.

Communication from Dr. Diaz, of Guayama, P. R., complaining of the bad sanitary conditions in that town, was read. The secretary was directed to write to the alcalde and call his attention to the matter.

A letter prepared by the secretary, calling the attention of the sanitary inspectors to the need of great care in cleaning up the municipalities, and of sanitary work in general, was ordered sent to the inspectors and to be published in the Official Gazette and the several papers of San Juan.

The secretary invited attention to the water supply of the playa at Ponce, saying that he considered the water in use dangerous. He was authorized to write to the health officer for a report on the sanitary condition of Ponce and its playa.

The matter of properly locating and arranging the homes of the poor on the outskirts of each municipality was taken up.

The president was directed to address a communication to the Adjutant-General, asking that an old order of June 8, 1893, be revised for this purpose. (See circular No. 32, series 1899, Adjutant-General's Office.)

The committee to consider the garbage dump at San Juan submitted a report, which was accepted and ordered sent to the Adjutant-General, inviting attention to the imperative need of a garbage crematory in San Juan. (See p. 42.)

SAN JUAN, P. R., *August 24, 1899.*

A meeting was called to order this evening at 8 o'clock. The president in the chair. All members present. The minutes of the last meeting were read and approved.

A communication from the military governor was presented, directing the board to make a sanitary inspection of the San Francisco barracks with a view of determining their fitness for a jail, and to secure from the architect of the board of public works a report as to the feasibility of converting the building and using it for such purpose.

On motion, the president appointed the following committee to report on the matter: Drs. Glennan, Ferrer, and Hernandez.

CHARGING VACCINE POINTS.

A communication was received from the president of the board stating that the commanding general desired the board to prepare a code of regulations for the subdelegation of medicine and surgery and to make an estimate of the money needed to conduct the operations of this delegation.

A petition was received from Ponce requesting authority to slaughter pregnant cattle, which was referred to the secretary for investigation and report.

The secretary presented a circular on typhoid fever and dysentery, intended to give popular information on the manner of avoiding these diseases. It was ordered that the circular be translated and transmitted to Dr. Ferrer for examination.

A vaccine station having been established in the building of the old institute "Agronomica" at Santurce, the following rules for its government were adopted:

1. The superintendent is in charge at the station, subject to the orders of the secretary of the board. He is responsible for the care and cleanliness of all the property of the board at the station and for the manner in which all work is done.
2. So far as possible the vaccinating and collecting of virus will be done in the forenoon.
3. The house, the office, the grounds, the sheds, the operating table, and the floor under it must all be kept scrupulously clean at all times.
4. The operating table and the floor under it must be scrubbed with soap each day after operations are completed and rinsed with water containing bichloride of mercury.
5. Perfectly healthy animals only shall be used at the vaccine station, and they shall not be operated on when overheated.
6. An animal shall be prepared for vaccination as follows: After being fastened upon the table the area to be vaccinated shall be scrubbed with soap and water, then shaved and thoroughly washed with water containing mercury bichloride, 1 to 1,000, then washed with water (sterilized by boiling) and dried with a clean towel.
7. The vaccinations shall be upon one flank, and shall consist of areas about the size of an American quarter dollar, each separated from others by a space of about 1 inch. The number of areas shall depend upon the age and size of the animal. Not more, usually, than sixteen to one animal.
8. All operations shall be performed only with instruments which are perfectly clean and which have been sterilized since last using. Immediately after the operations of any day the instruments shall be cleaned and sterilized by boiling.
9. The points before being charged shall be sterilized by boiling in water, dried on a wire screen, and after coating they shall be packed in designated boxes, duly marked with date, history of animal, etc., and forwarded to San Juan on the same day. After being coated the points shall not be handled more than necessary and shall not be exposed to the sun or to dust.
10. Should an animal be injured in any operation, the secretary of the board shall be at once notified, and all the details of the accident laid before him.
11. So soon as animals have recovered from the results of operations and are in good condition they should be returned to their owners and receipts taken for same.
12. A book shall be kept at the station in which shall be entered a detailed record of all the operations on each animal, the number of points produced, with all the results of the operation, in order that a complete history of the work of the station may be written at any time.

By order of the board:

GEO. G. GROFF, *Secretary.*

A communication was received from the municipal board of health of San Juan requesting assistance in the enforcement of the sanitary laws of the city. A letter was directed to be addressed to the alcalde, calling his attention to the unsanitary condition of the city and the imperative need of the enforcement of the existing sanitary laws and regulations.

A blank form was ordered sent to the different alcaldes to be filled in with the names of those who lost their lives in the recent hurricane.

It was decided that regular meetings should be held on the first and third Thursdays of every month

The advent of bubonic plague in Portugal was brought to the attention of the board.

SAN JUAN, P. R., *August 31, 1899.*

A meeting was held this evening at 8 o'clock in the offices of the board. President in the chair. All the members present except Dr. Ferrer. The minutes of the last meeting were read and approved.

The committee appointed to investigate the question of the wholesomeness of beef from pregnant cattle reported that there was no evidence that such meat was unfit for human consumption, provided the animals were otherwise healthy. (See p. 43.)

The committee on quarantine reported verbally that the changing of the buildings on the island of Miraflores into a quarantine station was now in the hands of the department of public works.

The special committee appointed to investigate the feasibility of converting the San Francisco barracks into a jail submitted its report (see p. 44). It believed that the barracks could not be converted into a jail with satisfactory sanitary conditions, and it recommended that such be not done. The report was adopted and ordered forwarded to the military governor.

The secretary presented reports from the sanitary inspectors at Guayama and Adjuntas, in which attention was invited to the need of new cemeteries. He was directed to refer these reports to the commanding officers at Guayama and Adjuntas, asking for examination and report to this board.

A communication from the alcalde of Guayama, asking for an appropriation of $1,000 for a hospital at that place, was referred to the commanding officer for examination and report.

The secretary submitted a report of an inspection made by himself of the seaport towns immediately after the hurricane. He also offered a brief of the present duties of the subdelegation of medicine and surgery. Drs. Groff and Hernandez were appointed a committee to draw up a code of regulations for the subdelegation.

Reports of smallpox at Adjuntas, Quebradillas, and Guayama were read, and the secretary stated that vaccine virus had been sent to these municipalities.

A letter was directed to be addressed to the president of the municipal board of health of San Juan, calling his attention to the need of closer inspections of groceries; also that a foul sewer had for a long time existed on the corner of San Jose and San Sebastian streets, and that, in the estimation of the superior board of health, it constituted a nuisance.

SAN. JUAN, P. R., *September 7, 1899.*

A meeting was called to order at 8 o'clock in the offices of the board. The president presided. All the members were present. The minutes of the last meeting were read and adopted.

The chairman of the committee on foods, drinks, drugs, etc., reported verbally that there was need of a more careful inspection of the food supply sold in the small groceries at San Juan. The secretary was directed to address a letter to the president of the local board of health, calling his attention to the necessity of a more careful inspection of these articles.

The committee on the subdelegation of medicine submitted its report, which was adopted (see p. 45), and ordered to be forwarded for the action of the military governor. (See General Orders 153, 163, and 191, series 1899.)

The secretary reported that the production of virus at the vaccine station had commenced and that a thousand points had been taken.

A communication was received from the military governor relative to the proposed sanitary regulations submitted by the board, stating that he was not able, at the present time, to give them full consideration. (Parts of these regulations were from time to time published in general orders until nearly all ultimately became law.)

Application for permission to disinter a body in the cemetery at San Juan was read and granted, the body having been buried the statutory period. (See p. 48.)

SEPTEMBER 22, 1899.

A meeting was called to order by the president of the board in its offices at 8 p. m. All members present except Dr. Ferrer. The minutes of the last meeting were read and adopted.

The following communications were received and acted upon by the board: From Juan Acuna, regarding impure water at his residence; from the sanitary inspector at Ponce, in reference to the sewers in the city prison and city hospital; from the sanitary inspector of Quebradillas, regarding his salary; from the commanding officer at Humacao, in reference to the bad sanitary condition at that place; from the assistant collector of the port, San Juan, calling attention to the bubonic plague in Portugal (this matter was referred to Surgeon Glennan for action and report); from Dr. Cabreras, in reference to contagious diseases in a private hospital at which he is physician; from the commandant at Ponce, inclosing a copy of a letter written to Dr. Ygaravidez, Penuelas, regarding his work at that place; from Angel J. Morales, of Anasco, regarding the loss of his license as pharmacist during the storm; from the commanding officer at Adjuntas, in regard to the cemetery at that place; from the superintendent at the vaccine station, in reference to the difficulty in securing cattle for vaccination, and from the commanding general, in reference to the control of prostitution (referred to the special committee on the subject). The following resolution, governing the sale of drugs and medicines, was adopted:

Resolved, That inasmuch as in all civilized and enlightened countries it has been found necessary to promulgate laws to protect the lives and health of the people from impure and unwholesome foods, drinks, and medicines, the superior board of health recommends that the accompanying regulations be promulgated in general orders. (See General Orders 151, series 1899, and 87, series 1900, pp. 52, 53.)

SEPTEMBER 28, 1899.

A meeting was called to order at 4 p. m. by the president. All the members present, except Dr. Glennan. The reading of the minutes were postponed. The order of business was the consideration of the accounts for the month of September, which were considered, approved, and ordered paid; after which the board, at 6 p. m., adjourned, to meet at the call of the president.

OCTOBER 5, 1899.

A meeting was called to order by the president at 8 o'clock in the offices of the board. The minutes of the last meetings were read and approved.

The committee reported that they were unable to find the archives of the subdelegation of pharmacy. (Some of these were afterwards found.)

The following communications were received and acted upon:

From the adjutant-general, in reference to the garbage crematory at San Juan. From B. Molinas, Ponce, regarding meat from cattle pregnant more than six months. From the alcalde of Mayaguez, regarding the sanitary needs of that city. From the commandant at Cayey, reporting on the sanitary condition of the cemetery at Guayama.

The secretary presented a report on the requirements necessary to secure a license for physicians and surgeons, pharmacists, dentists, etc., which, with the blanks for applications, etc., was adopted. The secretary was authorized to have the required number of blanks, etc., printed.

The regulations on interior quarantine, which had been previously adopted, were referred to the committee on that subject for further consideration, after which they were to be transmitted to the president of the board for submission to the military governor. (See General Order 170, series 1899, p. 57.)

The board decided to recommend the appointment of a commission to report upon the feasibility of using public lands on the island (city) of San Juan for building and park purposes.

October 17, 1899.

A special meeting of the superior board of health was held in its office at 8 o'clock. President presided. All the members present. Minutes of the last meeting were read and adopted.

The special business was the consideration of the contested bill of Dr. Manuel Martinez Rosello against the estate of Mr. Francisco Sanchez. (A duty inherited from the subdelegation of medicine.) It was returned with the recommendation that the physician be paid $125 (pesos) in full of his account.

October 19, 1899.

A regular meeting of the board was held in its office at 8 p. m., the president in the chair. All the members present, except Dr. Ferrer. The minutes of the last meeting were read and approved.

The committee on prostitution made report, which the board ordered translated. (See p. 46.)

The following communications were received and acted upon:

From the president of the insular board of education, in reference to a course of study in pharmacy. A committee of two, consisting of the secretary and Dr. Ferrer, was appointed to draw up a course of instruction in pharmacy. From the president of the San Juan board of health, in regard to the alterations in the sewers of San Juan. From the council of San Juan, referring to flesh of pregnant animals. From the commanding officer of Ponce, in regard to the sanitary condition of that city. From the commanding officer of the Department of Santiago, Cuba, in reference to the securing of vaccine virus from this board. The secretary and Dr. Glennan were appointed a committee to investigate the matter of supplying vaccine virus for Cuba and submit a report to the board.

Report from the superintendent of the vaccine station was ordered filed.

The president presented a copy of a letter which he had sent to the board of prison control, requesting that all jail physicians be required to vaccinate all prisoners hereafter admitted to these institutions. The secretary was directed to invite the attention of the president of the insular school board to the fact that a regulation existed in reference to the vaccination of school children and teachers.

A communication from the municipality of Salinas, in reference to the securing of the keys to the cemetery of that municipality. A communication from the president, regarding glanders in the neighborhood of Rio Piedras. It was directed that a letter be sent to the commanding general in reference to this disease.

The secretary reported that all questions to be used in the approaching examination of physicians, etc., were ready, and that blanks had been prepared and distributed for the gathering of vital statistics and information concerning cemeteries, asylums, hospitals, blind and lepers, and contagious diseases.

NOVEMBER 3, 1899.

A meeting was held at 8 p. m. in the office of the board. The president presided. All the members were present, except Dr. Ferrer. The minutes of the last meeting were read and approved.

A communication from Dr. Sein, of Lares, regarding the death rate of that municipality, was read. From Dr. del Valle, San Juan, giving information concerning licenses heretofore conferred upon dentists. From the civil secretary, in regard to the custom of registering licenses in municipalities. From the deputy United States marshal, complaining that cattle were being killed at Rio Piedras without inspection. A letter was ordered sent to the local meat inspector, calling his attention to this fact. Communication from the president of the Ponce board of health, regarding the slaughter of pregnant cattle and the uncleanly condition of the streets, was presented. Letter was received from the secretary of the board of prison control, stating that prison physicians had been instructed to vaccinate all persons in confinement, as well as those to enter in future. The board suggested that reports on vaccination should be required monthly from the prisons.

Report from the superintendent of the vaccine station for the month of October was presented.

The secretary was directed to prepare a draft for a general order governing the registration of foreigners in the office of the superior board of health; also one requiring monthly sanitary reports from the alcaldes and municipal judges, and also on the regulation of nuisances, construction of sewers, etc., in accordance with the regulations of the board.

The matter of forming an examining committee for the examination of physicians, pharmacists, dentists, etc., was considered, and the secretary was directed to communicate with Dr. Salicrup, Ponce; Dr. Amadeo, of Maunabo, and Ernesto Salvio, pharmacist, Mayaguez, inviting them to serve on the examining committee. Dr. F. Curbelo was named in case one of the other physicians should decline.

The secretary was directed to publish the names and other data connected with the registration of physicians, surgeons, etc., who had registered in the offices of the subdelegations of medicine and pharmacy.

NOVEMBER 16, 1899.

A meeting of the superior board of health was called to order by the president at 8 p. m. All the members were present. The minutes of the last meeting were read and adopted.

The committee on interior quarantine recommended that a suitable floating plant for disinfecting purposes should be secured by the insular government.

The committee on a course in pharmacy reported that two courses had been prepared and that an effort was being made to learn the existing requirements in reference to the studies in this profession. (See p. 47.)

The committee on the production of vaccine virus for Cuba reported that it was prepared to produce virus at the station of the board and recommended that such be done. A communication from the governor, in reference to the killing of pregnant cows, was referred to Drs. Groff and Glennan as a committee of two to consider the subject. The president read a communication from the president of the board of prison control, stating that the prison physicians had been directed to report to the superior board of health vaccinations made in the prisons of the island.

A communication was received from the ayuntamiento of Hato Grande in reference to the bubonic plague. The secretary was instructed to secure material for the preparation of a circular on this disease. A communication from the alcalde and council of Guayanilla in reference to a drug bill was referred to the committee on examination in pharmacy.

The subject of licensing those who had passed examinations in the extinct institute was taken up. The secretary was instructed to issue licenses when satisfied that all the examinations had been fully passed. The secretary was instructed to secure from the civil secretary the registry of the names of the professional men recently kept at the palace.

The following communications were acted upon: From Dr. M. Castro, requesting the position of general health officer of Porto Rico; from Dr. W. F. Smith, stating his qualifications for practice in Porto Rico. The case of Mr. Jose Figueros, of Naranjito, P. R., who had been practicing medicine in Porto Rico for more than ten years without a license, as municipal physician in several municipalities, was considered. It was decided that as his right to practice had been recognized by the government in permitting him to practice as municipal physician without license a license from this board should be granted. Communication from Dr. Lange, of Mayaguez, regarding his license, was acted upon.

The secretary was instructed to write to the alcaldes of Aguada and Ciales, stating that this board believed that the cemeteries in these municipalities should be enlarged. The regulation on nuisances, adopted by the board, was ordered referred to the committee on interior quarantine, thereafter to be returned to the president for submission to the military governor. (See General Order 80, series 1900, p. 68.)

NOVEMBER 29, 1899.

A meeting was called to order by the president in the office of the board at 4 p. m. All the members present except Dr. Ferrer.

The minutes of the last meeting were read and approved.

The chairman of the committee on interior quarantine reported on

the need and cost of a floating disinfecting plant for San Juan, the cost being placed at $5,360.97, exclusive of the barge required. The report was forwarded to the military governor, inclosing a letter from the Surgeon-General, Marine-Hospital Service, with the recommendation that at least one disinfecting barge be secured for Porto Rico at the earliest practicable moment.

The committee on disinterment of bodies reported that it had found a circular of August 1, 1863, which prohibited the disinterment of bodies before two years, and the disinterment of persons dead from contagious diseases. (See p. 48.)

The accounts for the month of November were presented and approved. A petition by Pedro Colon for permission to open a drug store was acted upon; also a communication from the alcalde of Humacao, in reference to the need of a new cemetery at Punta de Santiago. A drug bill from the municipality of Guayanilla was presented and ordered returned, because the papers were incomplete. A letter from the Surgeon-General regarding Dr. W. F. Smith's army services was presented. The board decided that this was sufficient to entitle Dr. Smith to a license.

Petition from Juan Arzuaga for a license was considered.

The secretary presented a number of regulations adopted by the board. They were ordered referred to the committee on interior quarantine for revision.

The president's action in sending a request to the commanding general for a chemical laboratory was approved.

A communication from the Surgeon-General calling attention to an error in one of the board's circulars was presented.

DECEMBER 14, 1899.

A meeting was called to order in the office of the board by the president at 4 p. m. The committee on a course of study in pharmacy submitted an outline for a two-year course in school and three-year course in drug store (see p. 48).

A letter from the president of the Ponce board of health in reference to the prosecution of persons who engage in the sale of adulterated wine was read. The board ordered that he be instructed to prosecute all such persons.

A communication from Dr. Orcasitas, Rio Piedras, regarding some bad flour that he had seized, was presented. He was then instructed to proceed according to the provisions of General Orders, No. 151, current series.

A petition of Juan Arzuaga for license as physician was laid on the table.

Letter from Dr. J. K. Kolnek, of Costa Rica, asking that the Costa Rican examination be considered equivalent to a State examination was read. The secretary was directed to inform Dr. Kolnek that it will be necessary for him to take the examination of this board in order to secure its license.

A communication from the military governor, in reference to the appointment of Dr. Berkeley, as chemist, was presented.

DECEMBER 29, 1899.

A meeting of the superior board of health was held this evening in the offices of the board, the president in the chair, and all the members present except Dr. Ferrer.

The minutes of the last meeting were read and approved.

A letter was received from Surgeon Glennan, expressing regret that his relief from duty in Porto Rico necessitated his withdrawal from the board. A minute was adopted appreciative of the valuable services rendered by Surgeon Glennan and regretting that the exigencies of service demanded his relief as a member of this board.

The committee on interior quarantine reported the cost of maintaining a floating disinfecting barge as $1,100. The report was accepted and the president was directed to communicate the views of the board to the military governor.

The committee on inspection of the hospital of the Auxilio Mutuo at Santurce reported. The report was accepted and a copy ordered sent to the alcalde of San Juan.

Complaint was received concerning foul odors arising from the dump station of the San Juan board of health. The board recommended that a garbage crematory be introduced.

A communication from the president of the San Juan board of health in reference to the introduction of sanitary water-closets into the city of San Juan was presented.

Various applications for examination as pharmacist, etc., were received.

The board was informed that a meeting of the board of examiners had been called for January 2, 1900.

JANUARY 18, 1900.

A meeting of the board was held at 4 p. m. in its offices. The president presided. All the members were present except Dr. Ferrer. Dr. Lavinder, of the Marine-Hospital Service, was present as Dr. Glennan's successor on the board.

The minutes of the last meeting were read and approved.

The committee of examiners reported that examinations were held from November 13 to December 13, 1899, and at these examinations there were successfully passed six candidates in medicine and surgery, two in pharmacy, two in dentistry, three in minor surgery, and one in midwifery; and that examinations were held on January 4, 5, and 6, 1900, at which three physicians were successfully passed. The reports were accepted and the secretary directed to issue licenses to the successful candidates.

On motion Dr. Lavinder was appointed chairman of the committee on interior quara tine.

A communication from the military governor, with reference to the appointment of a chemist, was presented and ordered returned with the following indorsement:

> Respectfully returned with the recommendation that the services of Dr. William N. Berkeley be secured as chemist to this board at a salary of $1,500. It is believed that this amount will be collected from the fines imposed under General Orders, No. 151, series of 1899.

A communication from the president of the local board of health of San Juan, respecting the collection of an account from the city, was forwarded to the Adjutant-General for the necessary action.

A communication from the president of the San Juan board of health in reference to a sewer near Casa Blanca was considered.

Several applications for the board's license were presented and acted upon.

The secretary presented a circular on diphtheria, which was ordered translated after revision by Dr. Hernandez.

FEBRUARY 1, 1900.

A meeting was called to order by the president at 4 p. m. in the offices of the board. All the members were present except Dr. Ferrer.

The minutes of the last meeting were read and approved.

On motion a committee was appointed to investigate the condition of the crypts beneath the San Francisco and Madres Carmelitas churches. Drs. Hernandez and Lavinder were appointed on this committee.

The secretary reported the completion of the work of registration of physicians, etc., of the island, the following numbers having been registered: Physicians, 169; dentists, 35; pharmacists, 196; practicantes, 70; midwives, 11, and professional nurses, 1.

The president presented a draft of an order modifying the provisions of General Orders, No. 153 (see General Order, No. 191). The board adopted the proposed order and directed that it should be laid before the military governor.

Various applications for examination and license were received and acted upon.

The secretary was directed to notify the secretary of the Pure Food Congress, Washington, D. C., that the secretary of this board had been appointed delegate to the next meeting of the congress.

The secretary submitted an account of the examiners of the superior board of health for services, amounting to $465, and was directed to secure a report from the examiners before further considering the account.

FEBRUARY 16, 1900.

A meeting was called to order by the president at 4 p. m. in the offices of the board. All the members present except Dr. Ferrer.

The minutes of the last meeting were approved as read.

The report of the committee on examinations stated that three pharmacists and one practicante had successfully passed the examination and recommended that licenses be granted.

The special committee on the crypts of the San Francisco and Madres Carmelitas churches made report which was adopted. The board ordered that the condition referred to in the report regarding the San Francisco church, be stated in a letter to be sent to the bishop of Porto Rico. (See page 48.)

The board approved the estimate of expenses for the month of February.

The account of the examiners for the two general examinations already held amounting to $465, was approved and it was ordered that a requisition be made upon the auditor for the money.

A communication from the military governor authorizing the board to appoint a chemist at a salary of $1,500, was received. The board appointed Dr. Berkeley to this position.

A communication from the commanding officer at Cayey regarding smallpox at that place, was received.

Several applications for licenses were presented and considered. On the subject of the term "toleration," (Paragraph XIV, General Orders, No. 191, series 1899) the following general decision was adopted:

The board holds that a diploma is a prerequisite, and that the term "toleration" applies to those who had a diploma or other equal evidence of attainment granted by a teaching body, but who had failed to obtain a license from the Spanish Government in Porto Rico.

The secretary submitted a report of the number of cases of contagious diseases reported since the last meeting of the board.

MARCH 1, 1900.

A meeting was called to order at 4 p. m. by the president. The following members were present: The president, Drs. Wieber, Hernández, and Groff.

The minutes of the last meeting were read and approved.

A communication was received from the military governor, enclosing a letter from the alcalde of San Juan, in reference to a garbage crematory.

The secretary was directed to have prepared a brief history of the royal subdelegation of medicine and surgery and also that of pharmacy from the records in possession of the board.

A report of contagious diseases was presented.

MARCH 22, 1900.

Meeting was called to order at 4 p. m. in the offices of the board by the president. All the members were present except Dr. Ferrer.

The minutes of the last meeting were read and approved.

Dr. George G. Groff, who had so efficiently performed the duties of secretary and treasurer of the superior board of health of Porto Rico, having been appointed president of the board of education, was in compliance with paragraph 3, Special Orders, No. 59, from these headquarters, relieved from duty as secretary and treasurer and continued as a member of the board. Dr. Harold W. Cowper was by the same order appointed a member and detailed as secretary and treasurer of the superior board of health of Porto Rico. He this day assumed the duties of his office.

There were no reports from standing or special committees. On motion, the chair appointed Dr. Groff as a committee to supervise the work of the chemical laboratory.

A communication from the municipal council at Utuado, requesting permission to open a new cemetery in the barrio of Mameyes, was read. It had been approved by the military governor and was returned, calling attention to this approval.

A communication from the council of Añasco, respecting the polluting of the water supply by the refuse from Mr. Pagan's sugar mill, was read. Communications from the alcalde and captain of the insular police on the same subject were likewise presented. These communications were ordered laid on the table until Mr. Pagan could be addressed for any statement he might care to make on the subject. The secretary was also instructed to write to the sanitary inspector for a full report. The president informed the board on this question that Mr. Pagan was practically the only person employing laborers in this municipality.

A letter from the alcalde of Hato Grande, respecting the right of Dr. Cueto to act as titular physician without a license from this board, was presented. It was ordered returned with the information that under General Order No. 153, 1899, this board could not authorize Dr. Cueto to practice his profession until he had complied with the requirements of said general order.

Dr Cueto's application requesting a special authorization to practice was presented. It was ordered returned with the information that

it was hoped that a sufficient number of applications would be made to justify an examination being held in April.

A communication from Rosa Hernández, of Naguabo, complaining that J. Silva & Co. were selling bread at reduced prices because it was made from flour damaged by the hurricane, was read. A sample of the flour complained of was then in the hands of the analyst. The secretary was instructed to write to the chemist, requesting him to submit a report on this flour as soon as possible.

A letter from Señor Martínez, of Arecibo, requesting a patent on a medicine he had invented, was again brought before the board. It was again laid on the table until such time as an order on the subject should be promulgated.

Various applications for licenses were received and acted upon.

Dr. Hernández discussed the San Juan water supply, stating that he believed that much of the illness in San Juan was due to the impurities therein contained. On motion, the chair appointed Drs. Hernández and Lavinder a committee to investigate the San Juan water supply.

APRIL 5, 1900.

A meeting was called to order at 4 p. m. in the offices of the board by the president, Dr. Ferrer being absent. The minutes of the preceding meeting were read and approved.

Mr. Pagan's reply to the complaint by the authorities that he is polluting the water supply of Anasco was presented. He stated that such was not the case and that the complaints were raised for political purposes. The complaints were ordered forwarded to the military governor with the recommendation that Mr. Pagan be required to cease polluting the water of the Rio Grande River on or before December 31, 1900.

Mrs. Monserrate's petition for license as midwife was brought before the board. The license was ordered granted, provided that the proper certificates, as of age, moral character, and competency in her calling, were forthcoming. It was decided on this point that the issue of licenses to midwives and trained nurses should hereafter be governed by the following resolution:

Resolved, That those persons who, under the Spanish dominion, were commonly recognized as following the calling of midwife or trained nurse, and who shall present proper certificates as to age, moral character, and competency in their calling, as set forth in the requirements for licenses governing these classes, may be licensed by this board.

The secretary reported 7 cases of diphtheria and 2 cases of smallpox as the quarantinable diseases reported since the last meeting. The following expenses for the month of March were approved by the board:

Superior board of health	$348.52
Vaccine station	114.10
Licenses account	350.99
Laboratory	358.39

APRIL 19, 1900.

A meeting of the board was called to order in its offices by the president at 4 p. m. All the members present, except Dr. Ferrer. The minutes of the last meeting were read and approved.

The special committee on the San Juan water supply reported its progress verbally.

The secretary reported 8 cases of smallpox and 1 case of dysentery as the quarantinable diseases reported since the last meeting.

Licenses were ordered issued to Dr. H. B. May and Dr. La Motte on the payment of the necessary fee. The former presented a diploma from the Milwaukee Medical College and a state license from Wisconsin. The latter had passed the Government examination for the Navy.

Several applications for licenses were acted upon.

A communication from the municipal board of health of Anasco, requesting information as to what had been done in the case of Mr. Pagan, was read; also in the case of two other planters, who, it was claimed, were polluting the water supply. The secretary was instructed to inform the board that the superior board had recommended to the military governor that Mr. Pagan be required to cease polluting the water of the Rio Grande River on or before December 31, 1900, and to request further information in the case of the other two persons.

In reference to the board's annual report it was decided to request each chairman of a standing committee to write a chapter for the annual report on the subjects which his particular committee had in charge.

Application from Alfonso Ayala, of Mayaguez, for license as nurse, was presented, together with satisfactory proof as to age, moral character, and competency of applicant in his calling, and that he had practiced during the Spanish dominion here. The board ordered a license issued.

MAY 3, 1900.

A meeting of the board was held this afternoon at its offices at 4 o'clock. The president in the chair. All the members were present, except Dr. Ferrer.

The minutes of the last meeting were approved as read.

There were no reports of standing committees. Special committee on San Juan water supply stated that it had submitted samples of the water to the analyst, and was awaiting the result of the examination before submitting its final report. In this connection the secretary read a communication from the analyst, in which he stated that the quantity of nitrites in the Rio Piedras sample made it open to grave suspicion, but on account of the small quantity submitted, and the manner in which it was taken, a satisfactory analysis could not be made.

It was resolved to request the committee to complete its report so that it could be incorporated in the proceedings of the board. (See p. 49.)

On motion, it was resolved to call on the chemist for a preliminary report on the laboratory work to be incorporated in the board's annual report to the military governor.

Señor Torres's application for license as dentist was again brought before the board. The papers were ordered returned with the following indorsement:

> Respectfully returned. Inasmuch as the order under which this board acts requires that its licenciates shall have a diploma or a certificate from some recognized teaching body, and as no such diploma or certificate appears with these papers, the board is not authorized to issue the requested license.

The communication from the municipal board of health of Anasco regarding the pollution of the water supply was again laid on the table until a reply could be received to a letter sent to them by order of the board at its last meeting.

The report of the superintendent of the vaccine station was read. It was accepted and ordered filed.

The secretary stated that the following quarantinable diseases had been reported since last meeting:

Smallpox: At Caguas, 5 cases; at Hatillo, 7.

Diphtheria: At Caguas, 1 case.

Dysentery: At San Juan, 1 case.

An application from Dr. Carrill y Rivera for a title as pharmacist was laid on the table for the action of the new board.

Vouchers for the following amounts were approved:

Superior board of health	$417.24
Laboratory	569.71
Vaccine station	105.22
License account	115.71

The president announced that General Orders, No. 102, current series, discontinued this board, and appointed a new one under the civil government.

He stated that the board had reason to congratulate itself on the work it had accomplished since its formation, and the firm foundation it had laid for the building up of an excellent sanitary system for Porto Rico. He suggested that the usefulness of the superior board of health would probably be put to the test this year, as he feared that a grave epidemic was extremely likely to occur, so many conditions being favorable to its advent. He thanked the members for their hearty co-operation in the work during the year, and for the unity and accord which characterized all their deliberations.

There being no further business, the board, at 5.20 p. m., adjourned sine die.

REPORTS OF SPECIAL COMMITTEES.

[Appendix to extract from minutes of the superior board of health, Porto Rico.]

JULY 1, 1899.

SIR: In accord with your verbal instructions, I visited the insane asylum to-day. It is impossible in a few hours to study the institution as should be done to get any clear knowledge of all its internal workings, and for this purpose I would suggest that a Spanish-speaking physician be retained for two weeks to make an exhaustive examination of the methods of the institution, both the administrative and the professional, and to make a report upon the same.

I could not obtain any information in the office of the "director," but found the books of the institution in possession of the Mother Superior. I found recorded the date of admittance of patients and of their removal, but no account of medical examination, classification, or treatment.

There is an asylum physician who, I was told, calls once each day and prescribes for the physical ailments of the inmates, but he does not treat the mental infirmities. There has been in the past a "practicante" employed to assist the physician, but he has been recently discharged.

The asylum should certainly command the full time of a reliable physician with some knowledge of mental diseases. He should reside in the asylum, receive each patient, make a record of each case on its reception, classify the case, and in case of death make an autopsy.

At the opening of the year there were 88 patients in the institution. There are now 125 patients present. With repairs made, 25 additional patients could be accommodated. The number of deaths during 1898 was 58, which for the number of patients present was very high.

It is recommended that repairs needed to increase the capacity of the asylum be made as soon as possible; that a resident physician be installed at once; and that the sisters, who are now in charge and who seem efficient and trustworthy, be continued undisturbed in their position.

GEORGE G. GROFF.

Maj. JOHN VAN R. HOFF,
Chief Surgeon, Department of Porto Rico.

REPORT ON BY-LAWS FOR GOVERNMENT OF THE BOARD.

ARTICLE I.—*Duties of officers.*

SEC. 1. The president shall preside at the meetings of the board, preserve order, and perform such other duties as custom and parliamentary usage require. He shall be, ex officio, a member of all committees.

SEC. 2. The secretary-treasurer shall keep the records and conduct the correspondence of the board. He shall be custodian of all books, documents, furniture, and other property belonging to the board. He shall give proper and timely notice in writing of every regular and called meeting to each member of the board, and shall, as executive officer, perform such other duties as are assigned by the order establishing the board, or by these by-laws, or as the board may from time to time direct. All communications from the secretary of the board shall be in writing.

SEC. 3. He shall keep in a separate book a strict account of all moneys received and paid out. He shall pay money only on order of the board. At the end of the fiscal year he shall present to the board, in writing, a statement of all moneys received, with their sources, and a detailed account of all moneys expended, and shall make such returns to the auditor of the island as may be required by proper authority.

ARTICLE II.—*Meetings.*

SEC. 1. The regular meetings of the board shall be held on the first Thursday in each month, at 8 p. m.

At the meeting in June the annual report shall be adopted, and a public address on some sanitary topic shall be delivered.

SEC. 2. Special meetings shall be called by the president, at such time and place as shall be designated, whenever requested in writing by three members of the board.

SEC. 3. A majority of the members of the board shall, at any regular, called, or adjourned meeting, organize and constitute a quorum for the transaction of business.

ARTICLE III.—*Order of business.*

SEC. 1. All meetings shall be called to order at the appointed hour by the president. In the event of his absence a chairman pro tempore shall be appointed.

SEC. 2. At regular meetings the business shall be conducted as follows: (1) The secretary shall register the names of the members present; (2) the minutes of the last regular meeting shall be read; (3) the minutes of special meetings held since the last regular meeting shall be read; (4) report of the secretary; (5) reports of standing committees; (6) reports of special committees; (7) unfinished business; (8) new business; (9) adjournment.

At special meetings the following shall be the order of business: (1) Registration of names of members present; (2) reading of minutes, if called for; (3) presentation of special subject; (4) presentation of accounts; (5) adjournment.

ARTICLE IV.—*Annual report of the secretary.*

The secretary shall, at the meeting in July, make a full report of his official acts during the year ending June 30 preceding, and accompany the same with recommendation of such measures as he shall deem necessary for the preservation of the public health and the faithful execution of the law; and this report shall constitute the basis of the report of the board to be presented to the governor.

ARTICLE V.—*Standing committees.*

SEC. 1. The following standing committees shall be appointed by the president of the board at the meeting in July of each year:

I. An executive committee to have charge of sanitary rules, regulations, legislation, and finances.

II. A committee on public water supplies, drainage, sewerage, public institutions, and school hygiene.

III. A committee on registration and vital statistics; trades and occupations prejudicial to public health; licenses and permits; all nuisances and offensive industries; tenement houses; street cleaning; cemeteries; and disinfection.

IV. A committee on inspection of foods and drinks, drugs, poisons, explosives, and other special sources of danger to life and person.

V. A committee on the regulation of the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming, and undertaking.

VI. A committee on preventable and communicable diseases, diseases of domestic animals communicable to man, vaccine station, and vaccination; interior quarantine.

SEC. 2. Such papers, communications, or other matter received by the secretary as he may deem proper for the purpose, shall be forwarded to the chairman of the appropriate committee, after filing the titles and memoranda, which shall be recorded in the secretary's office.

SEC. 3. All reports of committees shall be in writing.

ARTICLE VI.—*Finances.*

SEC. 1. All accounts against the board shall be filed with the secretary-treasurer, and may be presented at any meeting of the board, when they shall be acted upon in open session; and all accounts allowed shall be indorsed "approved by order of the superior board of health of Porto Rico," and shall be indorsed by the president and secretary.

SEC. 2. The secretary shall record, in a book reserved for that purpose, all accounts of expenditures ordered or made by the board and its several members, and shall, before presenting any bill, account, or voucher to the insular treasurer, cause a copy of the same to be recorded, and shall have stamped upon such voucher, account, or bill the audit and date, as the executive committee shall provide.

ARTICLE VII.—*Executive committee.*

SEC. 1. The executive committee shall consist of the president of the board and the representative of the United States Marine-Hospital Service, and of the United States Navy, upon the board, including the secretary of the board, who shall be secretary of the committee.

SEC. 2. It shall have the general supervision of the work of the board, including its finances, purchases, expenses, and publications of the board.

SEC. 3. It shall hold meetings as often as it shall deem necessary, and shall meet at the call of the chairman.

ARTICLE VIII.—*Rules of order.*

In conducting the business of the meetings of the board, the parliamentary rules governing similar boards in the United States shall be adopted, so far as they are applicable to the deliberations.

ARTICLE IX.—*Seal.*

The seal of the board shall be circular in shape, bearing on the circumference the words "Superior Board of Health of Porto Rico. 1899. Salus populi suprema lex," and in the center the coat of arms of the island.

ARTICLE X.—*Amendments.*

These by-laws may be altered or amended at any regular meeting of the board by a two-thirds vote of the members present.

Presented by the president.

JULY 6, 1899.

COMMITTEE TO REPORT ON CONDITION AND NEEDS OF THE INSANE ASYLUM.

In compliance with directions of the superior board of health, "To inspect and report on the condition of the insane asylum at San Juan," we have the honor to state as follows:

1. The insane asylum has been, and is still being, administered jointly with the orphan asylum. Supplies are received by the sisters for both institutions and issued from the common storeroom. Besides this, they have in common a dispensary and the medical staff, consisting of one physician in charge, who is at the same time the apothecary of the institution.

2. The present number of inmates of the institution is as follows: Fifty-eight males and 67 females, a total of 125, who are being cared for by 4 sisters for the female

insane and 5 attendants for the male insane. The capacity is for 60 males and 70 females.

3. The male and female patients are kept completely separate, each side having its own court. The communicating doors were found locked and well secured.

4. The corridors, dormitories, and verandas were found clean. The beds and bedding that were inspected were clean, and showed no signs of vermin. It was stated by the physician in charge that there were no bedbugs in the house.

5. It was stated to us that there were many applications for the admission of insane people into the institution, but for lack of room none could be considered at present.

6. In the men's part of the building one entire wing has been in ruins since the bombardment by Admiral Sampson's fleet; this wing comprised one dormitory and several cells for unmanageable cases.

7. The dormitories are large wards filled with beds, which in some places are so close together that a person can barely pass between them. The dimensions of the rooms were not taken, nor was the cubic content ascertained. There were counted in one ward 22 beds, in another 26 (these in the men's wards), and a third one contained 31 beds (in the female ward).

8. In some occupied parts of the building the flooring was rotten; in other parts it had been roughly patched.

9. The "latrines" are of Spanish style and there are no flushing arrangements. The water used for scrubbing and cleaning these places has to be carried by buckets from the court-yard cisterns.

10. The bathroom is of the most primitive construction; a large stone bath tub, built below the level of the floor, and most unsuitable for the bathing of helpless patients, and a few barrels filled with water comprise the outfit.

11. The kitchen is large and clean; the food appeared substantial and well cooked. The water used for the kitchen is carried by bucket from the cistern.

12. The drains lead from the various parts of the building into the bay. They were not inspected.

13. All the water used for drinking purposes is filtered through Pasteur filters.

14. The tractable patients in the institution are employed in the cleaning of the various parts. The females help in the laundry and kitchen.

The urgent needs of the institution are:

(1) Adequate water supply, which should be attained by making connections with city water supply; (2) proper lavatory, bathroom, and water-closets, with flushing arrangements and sanitary drains; (3) repairs to the cistern pump, windmill, and tank; (4) rebuilding of the dormitory in the wing of the male patients; (5) repair to rotten floors, wherever necessary; (6) separate administration from orphan asylum; (7) separate dispensary; (8) a medical staff, with resident physician, receiving adequate remuneration; (9) increase in the number of attendants for both sides.

F. W. F. WIEBER.

JULY 6, 1900.

COMMITTEE TO ASCERTAIN THE PRACTICABILITY OF MOVING INSANE ASYLUM TO SANTURCE

Your committee called upon the rector of the "Escuela Pia" July 7 and laid before him the plan proposed by the superior board of health at its last meeting, July 6. He answered as follows:

"I accept on general principles the idea of the transfer of the college to the capital. However, I can not take any steps in that direction without a given order from my superiors in Spain. I personally favor the plan and shall be glad to take with me on my proposed visit to Spain, leaving San Juan July 14, the offer of the exchange, providing that a building, suitable for our school purposes, giving us the necessary room for the boarding of our pupils and the instructors, and being fitted up for our purposes, be given in exchange."

During the conversation the rector stated that the only suitable Government building which he knew of was the old building next to the San Jose church, which is used now by the supreme court and also in part as the army medical supply depot.

We consider the grounds and buildings of the "Escuela Pia" at Santurce well situated for the purpose of an insane asylum. The property extends quite a distance behind the building, an area of 180,000 square meters. There is enough slope to the ground to permit of good drainage, the water main is handy, and the building appears substantial.

(Signed) F. W. F. WIEBER, M. D.

JULY 10, 1899.

THE LEPER HOSPITAL, SAN JUAN.

THREE WOMEN LEPERS—MOTHER AND TWO DAUGHTERS.

COMMITTEE TO REPORT ON CONDITION OF LEPER ASYLUM.

In accordance with the resolution of the superior board of health, adopted July 9, 1899, "that a committee of one be appointed to make a report on the present condition of the leper asylum, what improvements are necessary," etc., by the appointment of the chairman, I have the honor to submit the following report:

During the early part of the past winter, when a house to house inspection of San Juan was made by the local military board of health, of which I was an advisory member, a number of cases of leprosy was discovered concealed in different parts of the city in crowded tenements, and in some instances, which I personally observed, where laundering, and other work was taken in from American residents.

It was also ascertained that before the war a number of these unfortunates were collected in a rough frame building located immediately in the rear of the jail, within the city limits, near a number of inhabited cottages, and adjoining low marsh lands.

As a pressing temporary measure, these cases were collected and returned to this crude asylum until better isolation and quarters could be obtained. These proletaires were necessarily a public charge, rations were issued them and a keeper appointed to reside at and oversee the place. There are now 14 cases collected in this building, 8 males and 6 females.

A few cases have been transferred here from Ponce, and the estimate is that there are about fifty cases upon the island.

It may be stated briefly that leprosy occurs at all ages; that it is a bacterial disease; that it is contagious by inoculation, and that bad food, constant fish diet, and crowded surroundings predispose to the disease.

The geographical distribution of leprosy is extensive. It is found in the West Indies, the islands of the Pacific Ocean, in Madeira, South America, Mexico, Louisiana, California, British Columbia, Minnesota, and New Brunswick, where a large colony exists.

Without discussing whether leprosy is a contagious or infectious disease or its method of propagation, it is declared a quarantinable disease by the quarantine laws and regulations of the United States; also careful observation shows its spread in communities where the leper is not isolated.

In the Sandwich Islands it was noticed amongst the natives in 1859 and traced back to 1848. It spread rapidly, and in 1865 there were 230 known lepers in a population of 67,000. By 1891 the native population diminished to 44,232. Of these 1,500 were lepers, or one to every thirty of the population.

In New Caledonia it was unknown until 1865. It is supposed to have been introduced by a Chinaman who was well known. Its rapid diffusion throughout the island has been traced step by step, and in 1888 the lepers numbered 4,000. (Manson, Tropical Diseases, 1898.)

Leprosy never makes its appearance unless introduced by a leper, and the leper must be regarded as a source of danger to the community in which he lives. Facts are stubborn things, and the only way to suppress the disease is by thorough isolation.

The present location of the leper hospital, in a single rough building in the rear of the jail and within the city limits, is totally unfit for the purpose, and a menace to this community.

In looking over the field for a site for the proper isolation of these afflicted outcasts, the essentials were considered to be:

1. Their complete separation from inhabited districts.
2. A location where pure air, water, and exercise could be obtained.
3. Where a quantity of arable ground could be found suitable for fruits, truck gardening, support of goats, fowls, etc., and thus conduce to their self-support, contentment, and happiness.

One of the small islands lying off the coast of Porto Rico naturally suggested itself, and after a preliminary inquiry and inspection, the small uninhabited island or cay of San Luis was considered a good location for this purpose.

This island is situated in 18° 18′ north and 59° 8′ west of Greenwich, just off the east coast of the island of Porto Rico; it is 80 miles from San Juan by water, about 150 miles from Ponce, and near by to the island of Culebra. I spent a day and accidentally a night upon this island, making an investigation of its fitness for the purpose intended, sleeping upon the ground under a tarpaulin, because the transport *Slocum* failed to return in the afternoon to pick us up.

It contains a total area of about 400 acres, and between two steep rises of over 200 feet there is a bottom level of over 40 acres of arable land covered with thick undergrowth and some fair-sized trees.

A fresh-water run makes down one of the rises to this level, which could be

impounded and a supply of fresh water secured. There are beach landings on the north and east sides; on the former an inexpensive rough dock could be constructed with bowlders and stones near by. Timber is sufficient for fire and other purposes. Wild parrots are present in considerable number, and fish and turtle are abundant.

Taken altogether the island is considered suitable for the location of a leper colony, where they could be properly and comfortably isolated at less expense than at the present site.

At this time it is not considered necessary to erect buildings of an expensive character, but to house them in modest cottages, with due regard to age and sex, and having inclosed patches of ground for cultivation.

Bearing in mind that expensive buildings are out of the question at the present time, but that the colony can be maintained upon Luis Pena Island at no greater public charge than at their present location, the following recommendations are made:

First. That the fresh-water supply be exactly determined by sinking two or three driven wells to ascertain the character of the surface water. Also to decide the amount of impounding necessary to collect a water supply at different levels in the rocky draw, which could be piped to required places by natural fall.

Second. The water supply proving sufficient, a rough stone landing should be constructed upon the east-side beach for small boats and lighters, using the bowlders near at hand.

Third. After marking all fair-sized trees suitable and desirable for retention, the bottom tract of about 40 acres should be slashed and grubbed from beach to beach, thus giving a clear building site and free ventilation from shore to shore. If convict labor can be employed upon this work the expense need not be very great.

Finally. It is estimated that with the services of convict labor the clearing of the grounds, erection of temporary buildings, etc., the cost of housing the leper colony upon San Luis Island would be about $5,000.

A. H. GLENNAN.

JULY 17, 1899.

COMMITTEE ON INSANE ASYLUM.

The committee appointed at the last meeting of the superior board of health "to report and submit estimates on (1) the necessary changes in connection with the insane asylum, (2) the plan to change its location to the present Escuela Pia, in Santurce, and (3) plans for a new site somewhere on this island," has the honor to report as follows:

At the present institution, which under any conditions will have to be used as a home for the insane for some time to come yet, the following changes and additions are necessary:

1. Connection with the city water main in order to supply ample water for proper cleaning and flushing.
2. A new small annex building on either side of the chapel wing and its northern end to contain 12 automatic self-flushing water-closets, 2 lavatories, and 2 bathrooms.
3. The drains from the annex, also the surface drains from the court, require connection with the military sewer.
4. The destroyed ward in that part of the building which is used by the male insane must be rebuilt to relieve the crowded condition of the wards.
5. The rotten flooring in the basements of both wings is to be replaced by pine flooring, tongued and grooved, and this painted over with oil paint to make it impervious as much as possible to the excreta of the confined uncontrollable inmates
6. A concrete open drain back of the cells, properly graded with flushing facilities by means of hose attachments, and connected with the sewer.
7. Minor repairs to the outside of the building where it has been struck by shells during the bombardment of the city.
8. There is no available space allowing of expansion.

The estimated cost of the work recommended is about $6,000.

It is intended by these changes merely to tide over the period necessary to supply a better place for the insane and during this time to put the asylum into the best possible hygienic condition.

The report and estimate on the plan to acquire the Escuela Pia at Santurce involves the following points:

1. To change this building from one fitted up for school purposes to one suited for an insane asylum.
2. To provide another public building in the city of San Juan, in exchange for the above school and fit it up for school purposes.

As the building asked for in exchange is in Government use, and as it is doubtful if the transfer could be made, and as the conditions of transfer are too indefinite, and have to be decided in Spain by the superior of the order by which it is leased, the committee could not see their way clear to estimate on the proposition.

To estimate on a modern insane asylum to be built up "de novo."

The plan proposed is figured on an estimate of about 240 insane. The committee consider that about 100 acres of land are required to place the institution on a modern footing. The location should be preferably near a town or city, so that provisions can be easily obtained and so that labor and material are at hand, when required.

To accommodate the given number of patients it is proposed to build 12 one-story pavillions consisting of 2 wards, and being under the charge of 2 nurses, with bath and water-closet arrangements. Estimated cost, 60,000 pesos.

3. A central administration building, large enough to contain kitchen, separate dining rooms, storerooms in the basement, offices, reading rooms, social hall, etc., on the first floor, and the living rooms of the employees and nurses on the second floor. Approximate cost, 30,000 pesos.

4. A hospital with male and female wards, large enough to accommodate 60 patients, containing cell rooms in the basement, fitted up according to modern ideas, for 40,000 pesos.

5. A residence for the medical officer in charge for 10,000 pesos.

6. A steam laundry, a boiler house with two boilers, an electric-light plant, steam pumps for all purposes. Approximate cost, about 12,000 pesos.

7. A small chapel, about 2,000 pesos.

These estimates must of necessity be very rough ones, but we believe that the sum total will not be very far from the actual figures.

Neither the water supply nor the question of sewerage has been entered into, as these questions depend upon local conditions.

The employment of the insane on farms or in workshops is left for future considerations.

F. W. F. WIEBER.

JULY 18, 1899.

The following estimate of expenses for repairs to Manicomio is attached to above committee report:

	Pesos.
Wall demolition	72
Wall reconstruction	1,120
Roof reconstruction	165
Pitch pine flooring	1,375
Latrines and baths, new buildings:	
Masonry	1,764
Cement flooring	288
Brick roofing	198
Plastering	126
Doors and windows, painting	120
Total	5,228

In American currency, $3,136.80.

Plumbing, water supply, sewerage:

2 6-stall, enameled-iron, automatic-flush closets; 4 iron enamel automatic-flush closets; 4 iron baths; 4 kitchen sinks; 4 slop sinks; 4 shower baths; 3 urinals; 100 feet fire hose; 200 feet 2-inch fire line, iron pipe from city main, with two connections for hose, fixtures to be set up complete, with connections to sewer and water main.. $2,177.00

Total cost, American currency, $5,313.80.

PAUL LE HARDY, *Engineer.*

REPORT OF THE EXECUTIVE COMMITTEE.

During July this committee held four meetings. At each meeting all the members were present. On July 25 an estimate of expenses of the superior board of health for the current month, amounting to $328, was adopted. At the same meeting an estimate of the expenses of the leper asylum for July, amounting to $182, was adopted.

It was agreed at this meeting that the services of the barber at the leper asylum

should be discontinued. It was agreed that all payments of salaries by this board be in United States currency, without any increase in present rates of payment.

It was agreed that professional nurses be added to the list of persons to be licensed by this board on presentation of proper diplomas and certificates or testimonials. Several applications for admission to the insane asylum were considered. A report on the sanitary condition of the Beneficencia, by Chaplain Henry A Brown, was received, indorsed, and referred to the commanding general.

It was agreed that for the present the meetings of the executive committee should be held at 4 p. m. on Mondays, Wednesdays, and Fridays.

At this meeting a monthly schedule of wages to be paid at the insane asylum, amounting to $485, was adopted as follows:

Attending physician	$100
Practicante	50
1 chief attendant	35
1 assistant to chief attendant	30
7 Sisters of Charity, at $15	105
3 first-class assistants, at $25	75
3 second-class assistants, at $20	60
3 servants, at $10	30

An estimate of the expense of the insane asylum for July was adopted, amounting to $1,072.63. The secretary was authorized to secure proposals for printing the regulations of the board. The president of the board was requested to secure the authority of the governor-general to employ Mr. F. H. Janes, architect, to draw plans, make estimates, and supervise repairs to insane asylum.

The secretary was authorized to notify Dr. Nater, city physician, that the superior board of health would in the future pay him $24 per month for his services at the leper asylum.

Mr. F. H. Janes, architect, was present at this meeting and discussed with the committee plans for repairs of the insane asylum.

At this meeting reports of the committees on the lunatic and leper asylums were considered. The meeting adjourned to meet at the call of the president.

AUGUST 3, 1899.

COMMITTEE ON BACTERIOLOGICAL INSTITUTE.

The committee appointed by the superior board of health to report on the biological or serotherapeutic institute, as treated of in various papers, plans, and indorsements submitted, have the honor to report as follows:

1. We consider that an institution of this kind is necessary in localities in which from the frequency of special diseases, such as rabies, diphtheria, tetanus, smallpox, etc., an actual want of antitoxines of special virus exists.

2. No definite data are available showing the special prevalence of any of the above-mentioned diseases, except in the case of smallpox. For the past year only two cases of rabies have come to the attention of the chief surgeon of the army.

3. We find that antitoxines from reliable sources can be obtained upon the island for the following diseases: Diphtheria, tetanus, and septicæmia—it is true, at considerable expense. A vaccine farm will be established by the superior board of health, which will furnish all the virus required by the island. It is impossible to procure virus for the treatment of rabies, this being, therefore, the only disease of this class not provided for.

4. Rabies is an extremely rare disease, as is shown by the following figures: Dulles was able to collect only 78 cases of this disease in the United States for the period of five and one-half years, from 1887 to 1893.

5. We are of the opinion that the proposed "institute" can not be considered a pressing necessity on this island at the present time, and we do not advise any expenditure of public funds in that direction.

6. All papers submitted are herewith returned.

F. W. F. WIEBER.
RICARDO HERNANDEZ.
GABRIEL FERRER.

COMMITTEE ON GARBAGE DUMP FOR SAN JUAN.

The undersigned committee, to whom was referred the subject of the garbage dump for the city of San Juan, begs leave to submit the following report:

Prior to the American occupation this city had a contract to haul away the garbage for 8,000 pesos per annum. This was accomplished by means of ox carts, and the

refuse was dumped upon private property between the city and Martin Pena. This slow process resulted in open carts proceeding along the military road at all times of the day, scattering refuse along the only highway leading from the city, making a trail of odors and an unsightly condition of affairs. The city is now comparatively free from flies, whereas under this former primitive method these pests were abundant.

After the establishment of the local military board of health a sea-water dump was improvised upon the ocean side of the island east of San Cristobal. A shorter haul, quicker disposal, and the lesser of two evils resulted. This method prevails at the present time, and 14 Government wagons, with drivers and mules, are in daily use upon this work without expense to the city, which from a commercial point of view may be estimated at a value of at least $40 per diem to the municipality.

It will therefore be seen that if the city should return to the old system of private contract for the work, there must necessarily be an interest in securing this garbage for filling and fertilizing waste land, to the detriment of the general health and comfort of citizens and visitors. It will also operate against the future commercial development of the capital, will prevent moneyed investments in the place, and wealthy winter visitors will be driven away from a locality where crude and insanitary methods are adopted.

There remain three ways for the disposal of garbage and the contents of cesspools:

The objection to the present dumping site is that some refuse, as old tin cans, broken glassware, etc., litters the beach formerly used for bathing purposes, and at times some odor prevails in the locality. This is true, and your committee sought another site for a shore tide-water dump, but without success. Even if a location was obtainable near the old cemetery, the steep haul contraindicates it.

Second. The loading of barges and towing out of the harbor is mechanically practicable, but in this tropical climate is objectionable anywhere along the limited water front on account of delays in loading, storms, and towage ensuing, foul odors, flies, etc. This method is also expensive and has recently been condemned by the governor and health department of New York.

The third alternative is by cremation. This is the modern scientific method and now in practical use in a number of the cities of the size of San Juan. The amount of material to be handled here will at no time exceed 30 tons per diem. We are informed that what is called a 15 to 20 ton apparatus will consume this amount with some time to spare in the twenty-four hours, and that this capacity will answer the purpose of San Juan for years to come.

After the first cost of a crematory the running expense is comparatively little. It is a fair business proposition even for a stock company, and the municipality of San Juan should undertake it for the development of the capital and as an example to other large cities upon the island.

A. H. GLENNAN.
RICARDO HERNANDEZ.

AUGUST 16, 1899.

COMMITTEE TO EXAMINE INTO FITNESS OF BEEF FROM PREGNANT COWS FOR USE AS FOOD.

Your special committee, appointed August 24, to examine into the fitness for human food of beef from pregnant cows respectfully begs to submit its report as follows:

Such beef is not forbidden by the laws of the States of New York, Pennsylvania, Maine, Wisconsin, Kentucky, or the District of Columbia, and of the Province of Quebec and Dominion of Canada. The writer, in his experience as a health officer, never had his attention called to any law in any State as to the unwholesomeness of such beef.

In the Treatise on Hygiene, by J. J. Notter and R. H. Firth, the following reference is made to the subject:

"Carcasses of animals slaughtered before, during, or immediately after parturition are not necessarily unfit for food. If there is evidence of extravasation or inflammation of the pelvic cavity, and the flesh elsewhere is pale and livid and ill-set, it should be condemned. But if it be a case of abnormal presentation, and the animal is slaughtered and properly bled and dressed, the flesh may be perfectly fit for consumption."

No other reference could be found on the subject, either in English or Spanish books.

Your committee believes that the regulation existing in Porto Rico at present against slaughtering pregnant animals is based on economic grounds rather than sanitary.

G. G. GROFF.

AUGUST 26, 1899

COMMITTEE ON ADVISABILITY OF CONVERTING SAN FRANCISCO BARRACKS INTO A JAIL.

Your special committee appointed to make an examination of San Francisco Barracks respectfully submits the following report:

These barracks are situated in the eastern portion of the city of San Juan, bounded by the Calles Luna, Tamarindo, Tanca, and San Francisco, all these streets having different grades, with Luna as high as the second floor of rear building, abutting the walls, causing dampness and mold.

Facing San Francisco street are the old church and chapel of the same name, with a more recent public building on the southeast corner of the block. These barracks were originally constructed by the order of the San Francisco Monks, in mediæval style of architecture. The greater portion of the work was begun in 1650, and completed by 1680. It has been somewhat added to since that time, and was occupied by the San Francisco Monks until 1835, when the religious orders were suppressed.

A few years later it was converted into a military barracks under the direction of Colonel Cortigo, of the engineers.

They now consist of thick walls of masonry surrounding two inner courts and archways, inclosing numerous cells and dark rooms. The only sunlight and air upon the ground floor was obtained by the animals stabled beneath the open archways.

The ground floors are upon different levels, with obstructed drainage, which act as catch basins, and the soil is permeated with the excretions from the cesspools above on Luna street. The whole structure is a shell of old walls and arches of masonry, forming confined air spaces. The stairways are narrow, broken down, tile-and-cement work, and the flooring consists of inferior rough patched boards, with their edges and under surfaces stained from the drippings and washings of years. With the conditions given, which obtain in these old barracks and grounds, that of moisture, mold, and absence of sunlight and air, and an average temperature above 70° F. throughout the year, an ideal culture bed is formed for the propagation of disease germs. This is thoroughly borne out in the history of the place during the occupancy by the Spanish soldiery, who afforded the nonimmune material to complete the facts in the case.

Dr. Gabriel Ferrer, of this committee, is personally cognizant of the origin and development of yellow fever in these quarters, he having been frequently called in as a consultant. He states: "I can affirm, because experience has taught me so, that the greater number of people attacked with yellow fever always proceeded from the soldiers located in these barracks."

This is also personally known to Dr. Ricardo Hernandez. Cases were allowed to remain until in a desperate condition, often dying during removal to the hospital, and the death rate was as high as 47 per cent, showing a virulent type of the disease.

While the dictum may be true that there is no building which can not be disinfected, it is equally true that disinfection does not correct bad sanitary structural conditions, which preeminently exist in the San Francisco Barracks. Already this season yellow fever has broken out in several like buildings in Cuba, the last in the marine barracks in Habana a few weeks ago, and it is not possible to suppose that they had not been disinfected prior to occupancy.

Dismantling, alterations, or repairs to buildings of this class during the yellow-fever season experience has shown is disastrous in the extreme. The United States consul at Vera Cruz makes official report as follows: "Early in the spring of last year the city council passed a resolution to have owners of property comply with an ordinance then existing to repair and fix up buildings in the city; hence they commenced to take out partitions, break down entire walls, remove roofs, etc., and débris was piled up in the streets everywhere. It was then that yellow fever made its appearance, and as the work progressed the fever increased, until it is now an epidemic." The outbreak of this disease in Franklin, La., probably originated in the dismantling of an old house which had been infected the previous year, and the breaking up of an old barge in Habana Harbor was followed by yellow fever in the crew of a vessel near by. Other instances could be cited where yellow fever owed its recrudescence to the alteration and tearing down of old, infected buildings.

For these reasons your committee earnestly recommends that at the close of the present summer season, after fractional disinfection, the whole structure be dismantled, available material used for other purposes, the dry, clean, and disinfected débris utilized in grading and terracing the block, upon which a top dressing could be placed, and proper sewerage and drainage established.

This work should not be undertaken before the expiration of ninety days.

Your committee does not believe that modern methods of sanitation and scientific construction should be disregarded by any makeshift alterations and repairs for the housing of prisoners, aside from the objection to bringing this class of people into

an already overcrowded city. Any collection of persons under the circumstances, whether prisoners or school children, would be an acknowledged danger to the health of this community.

It may be a little out of the province of this report but still a matter of sanitation to state that public air spaces are very limited in San Juan, which is compactly built and contains a dense population. For this reason many of its citizens wish the site of the San Francisco Barracks converted into a public park.

"Mens sana in corpore sana" is also an educational matter.

Finally, your committee begs leave to state that if this site is reserved for public purposes the only solution to the question is the dismantling of this old shell structure and the establishment of a complete grading, sewerage, and drainage of the block. The cost of erecting one or two modern buildings, using available material, will not be in great excess of dubious repairs and alterations, at the same time affording a lesson in modern scientific architecture and the establishment of proper hygienic conditions.

A. H. Glennan.
R. Hernandez.
Gabriel Ferrer.

August 28, 1899.

COMMITTEE ON SUBDELEGATION OF MEDICINE AND SURGERY.[1]

Whereas the powers and duties formerly possessed by the subdelegation of medicine and surgery of Porto Rico have been transferred to the superior board of health, and whereas the safety of the public is endangered by incompetent physicians and surgeons, pharmacists, dentists, midwives, practicantes, etc., and due regard for public health and the preservation of human life demands that none but those competent and qualified shall practice these professions: Therefore, be it ordered:

1. That in the place of the subdelegation of medicine and surgery, pharmacy, etc., of Porto Rico, an examining committee shall be appointed by the superior board of health, to consist of three graduates in medicine and surgery, of not less than ten years' standing, and of recognized ability in their professions, two graduates in pharmacy, and one graduate in dentistry, possessing the same professional standing. The committee shall be divided into subcommittees for the work of examining.

2. The superior board of health of Porto Rico will make and adopt for the examining committee all necessary rules and regulations and by-laws not inconsistent with existing laws and regulations or with the Constitution of the United States.

3. The said examining committee shall meet and organize in the city of San Juan within one month after the appointments are made. The superior board of health shall provide a place for the meetings of the examining committee.

4. All fees received by the committee shall be turned in to the treasurer of the superior board of health. After the payment of legitimate expenses the balance shall be divided among the members of the committee in such manner that each member shall receive his proportionate share of the fees received from all persons he actually examines. The recorder will receive his proportionate share of all the fees received.

5. At the first meeting the members shall draw lots for terms of service. The first two names drawn shall serve one year, the next two drawn shall serve two years, and the last two drawn shall serve three years. The superior board of health shall, on January 1 of each year, appoint two members, who shall serve three years. A president and a recorder shall be appointed by the superior board of health on the same date.

EXAMINATIONS.

6. The examining committee shall hold examinations for those who desire to practice medicine and surgery in Porto Rico, also for practicantes, midwives, professional nurses, and dentists, at such times as the superior board of health may direct.

7. All applicants under the classes named, desiring license to practice their professions or occupations in Porto Rico, shall first present their diplomas or certificates to the secretary of the superior board of health, together with a certificate signed by responsible persons as to the good moral character of the applicant. If an examination of these papers proves satisfactory, the secretary will issue a permit to the applicant to appear before the examining committee for examination.

8. The questions used shall be first submitted to the superior board of health, and, after being approved, the same questions shall be used with all individuals of one class applying at one time for examination. All examinations shall be in writing and subject to such rules and regulations as the superior board of health shall, from time to time, prescribe

[1] See General Orders, Nos. 153, 163, and 191, series 1899.

9. After each examination the examining committee shall, without unnecessary delay, act upon the same. An official report of such action, signed by the chairman, recorder, and each acting member, stating the subject of the examination, average of each candidate in each branch, the general average, and the result of each examination, whether successful or unsuccessful, shall be forwarded to the superior board of health. Said report shall embrace all examination papers, questions, and answers thereto. All examination papers shall be kept for reference or inspection for a period of not less than five years.

10. On receiving from the examining committee an official report of the result of any examination of any applicant for license, the superior board of health, if it approves the report, shall forthwith issue to each applicant adjudged by the examining committee qualified to practice medicine and surgery or the other branches named in this order a license to practice same in Porto Rico, signed by the officers of the superior board of health and attested by its seal.

Before any license shall be issued by the superior board of health it shall be recorded in a book to be kept in its office, and the number of the book and the page therein containing such recorded copy shall be noted on the face of said license. Said records shall be open to public inspection, under proper restrictions as to their safe-keeping, and in all legal proceedings shall have the same weight as evidence that is given to the conveyance of land.

11. In case any applicant shall fail in his examination before the examining board, he may reappear, on the approval of the superior board of health, at any subsequent examination after six months and within two years, without payment of any additional fee.

12. It is also provided that applicants who possess diplomas from reputable medical colleges, and who have been licensed by state boards, after an examination, may, upon the payment of $25, be licensed by the superior board of health, if the superior board of health so decides, without examination.

13. The fees established by the superior board of health for examination are as follows:

The fees for examination of physicians, surgeons, dentists, and pharmacists shall be $25, not to be returned in case applicant fails.

Practicantes shall pay $10 and professional nurses $10 for their examinations and licenses. Midwives shall pay $5. These fees shall not be returned in case applicant fails.

For registration of a license by the superior board of health the fee shall be $1 in every case, which shall be applied as in paragraph 4.

14. No person shall practice medicine or surgery or the other branches enumerated in this regulation in Porto Rico until the provisions of this regulation are complied with, except such persons as have secured the right under the Spanish Government and medical officers serving in the Army and Navy of the United States or in the United States Marine Hospital Service.

15. For the purpose of advertising the first examinations and for necessary stationery an appropriation of $50 is made.

G. G. GROFF, *Chairman.*

SEPTEMBER 7, 1899.

COMMITTEE ON REGULATION OF PROSTITUTION.

Without discussing whether the fixing of laws governing prostitution is right or an abuse of power, or whether it is moral or demoralizing, it is an established fact that the vice ably defined by Letu as "an abandonment to shame" is so common and pernicious that philosophers, moralists, scientists, and governments have regarded its repression as a special study and still give the matter their attention, trying to make, perhaps, a code of laws for lawlessness, but at any rate making a noble effort to prevent or at least diminish the grievous consequences of the vice. Considering the matter, not philosophically, but merely from a practical and hygienic point of view, there is no doubt that unchecked prostitution produces two great evils—one affecting public health and the other offensive to private and public morals, particularly where innocence and virtue are left unprotected. The fact that these evils exist renders it necessary that they be relieved, the first by hygienic and scientific measures, and the second by repressing the scandal and shame inherent to prostitution, even though soi-disant idealists sneer and argue that sexual intercourse should be free, without thinking that they are condemning the innocent to the reign of harlotry.

We therefore beg to advise that the regulations applied to prostitution in Habana be adopted, as we consider them the most complete code bearing on the subject.

RICARDO HERNANDEZ.
GABRIEL FERRER.

OCTOBER 19, 1899.

GOVERNMENT OF THE OCCIDENTAL REGION AND OF THE PROVINCE OF HABANA.

Decree.

Convinced of the necessity for close and constant attention to the important question of the control of prostitution, which is under the exclusive charge of the civil government of the province, but realizing that the direction of the vast business of the regional government will prevent me from giving such personal attention to the said branch of hygiene as the public interest demands, I deem it advisable to establish an auxiliary board of this government, which, as delegate of my authority, will take charge of everything pertaining to the said branch of hygiene in this city and effectively and economically administer the laws which govern it.

Any unexpended balance of moneys left after payment of all legitimate expenses of the board must be applied in future to public charity, one-half to the Royal House of Maternity and Beneficencia, and the other to the civil hospital, "Our Lady of Mercedes."

It is ordered that—

1. From this date a special board for control of prostitution be established.

2. The board will be composed of a chief physician, the director of the county house for prostitutes, the director of the Royal House of Maternity and Beneficencia, the director of the civil hospital, "Our Lady of Mercedes," and the acting inspector physician in charge of the property of the board.

The first-named of said functionaries will preside over the board and the last will act as secretary. Every member of the board will have voice and vote, and if in any matter submitted the votes are equally divided, it will be forwarded to me for final decision.

All the acts of the board will be inscribed in a book kept for that purpose, the leaves of which must be numbered. They must be properly indexed, and each must be signed by the secretary, with the approval of the president.

3. The board, as delegate of the governor, will exercise its administrative and executive duties in accordance with these regulations.

4. The board will take charge of the records and funds pertaining to the section of hygiene of this government, previously making a duplicate inventory and an exact balance, also duplicated, of its assets, as well as all outstanding obligations to date. These obligations will have preference, and will be paid by the board according to the entries.

5. The annual balance on hand, after all obligations of the board are paid, will be equally divided between the House of Maternity and Beneficencia, and the civil hospital, "Our Lady of Mercedes."

6. During the first fortnight of January the board will make a detailed report to the governor of the work performed during the preceding year. An account of moneys received and expended during the period will be included in the report, and a like account will be submitted on the 30th of June.

7. The board will submit as soon as possible for my approval any additions to the regulation in force which it may deem necessary.

8. The board will be held responsible for the proper regulation of prostitution, and will so perform its duties as to best accomplish this end. Its acts will at all times be subject to my approval.

9. The board is authorized to establish its offices in a convenient place for the object proposed in the present decree.

FRANCISCO CASSA.

HABANA, *March 1, 1892.*

NOTE.—Owing to the extent of this report it was deemed inadvisable to publish the regulations in extenso.

COMMITTEE ON COURSES IN PHARMACY.

Your committee appointed to draw up schedules of studies to be pursued by candidates for a license in pharmacy has the honor to recommend that evidence of having taken one of two courses be required of all candidates desiring admission to the board's examination. The first to be a two years' course in a recognized college of pharmacy, during which the following studies shall have been successfully passed:

First year:	Months.
Elements of physics	4
General chemistry	4
Latin	9
Analytical chemistry	5
Botany	5

Second year:	Months.
Organic chemistry and toxicology	4
Materia medica	5
Practice of pharmacy	9
Microscopy and pharmacology	4
History of pharmacy and English language	5

The second to be a three-year course of occupation and study in a pharmaceutical establishment of good standing, under the direction of a pharmacist preceptor. The following reading course to be taken in conjunction therewith:

First year: English language, elements of physics, botany.

Second year: English language, Latin, general chemistry, natural history.

Third year: English language, analytical chemistry and toxicology, history of pharmacy.

Respectfully submitted.

G. G. GROFF, *Chairman.*

NOVEMBER 16, 1899.

COMMITTEE ON DISINTERMENT OF BODIES.

Reports that a circular of August 8, 1863, found in the memorandum book of official orders Porto Rico, signed by General Concha, reads:

"No body may be disinterred before two years, or within that time be transferred from a cemetery to a church.

"After two to five years bodies may be so disinterred upon ecclesiastical authority, approved by the governor-general, based upon a certificate of two physicians, that no danger to public health could result.

"After five years the governor-general may authorize removal.

"In all cases of contagious diseases disinterment is prohibited.

"Physicians' fee for certificate and for superintending disinterment, 12 pesos, with traveling expenses."

The following has been the practice:

1. Cadavers that were previously embalmed may be exhumated at all times without medical examination or medical certificates.

2. After five years of interment the disinterment may be allowed without the medical certificates.

3. Exhumation is absolutely prohibited in less time than two years.

4. After two years' interment of the corpse the exhumation will be allowed, provided that a previous inspection is made, and the certificates of two physicians are given, in which will be stated that there would not be any danger to public health.

For the removal of the remains from one cemetery to another in the same province, or to a different province, or to a foreign country, it is necessary to have a permit from the ecclesiastical authorities, a license from the governor of the province, and in the last case a permit from Her Majesty.

It is absolutely prohibited to exhume and transfer a cadaver to any church, pantheon, vault, or cemetery situated inside of the city.

In view of the above laws and conditions, I think that as Mrs. Coy has proven by medical certificates that her husband died of a noncontagious disease and that more than five years have elapsed since his death, that the board of health, according to existing laws, has full and complete power to grant her request.

RICARDO HERNANDEZ.

DECEMBER 8, 1899.

COMMITTEE ON CRYPTS UNDER SAN FRANCISCO AND MADRES CARMELITAS CHURCHES.

We, the undersigned committee, appointed to inspect the burial places of San Francisco and Madres Carmelitas churches, have the honor to submit the following report:

Carmelitas.—There are two places for the burial of the dead in connection with this church—the vaults or crypts of the convent of the cloistered order ("Las Madres Carmelitas") adjoining the church and the crypt under the floor of the church itself.

The vault of the convent is situated below the ground floor of the convent, but is probably above the level of Luna street, which makes a sharp descent in front of the convent. The vault consists of a small inclosure (masonry) reached by a flight of stairs, open to the air, but provided with heavy doors for closure, and contains some six or eight niches built in the walls and one cemented box-like inclosure, having a high crescentic opening, unclosed, admitting partial inspection of the interior. The entire place is neat, clean, and without any odor. We were informed that the bodies

of all dying in the convent are buried here; the body properly coffined being first placed in one of the niches, which is then closed with brick, cement, or something similar, and there it remains for several years (ten to fifteen); the niche is then opened and the bones remaining are thrown into the cemented inclosure described above. There were so few bones in this inclosure that it occasioned comment. The sister superior informed us that they rapidly disintegrated in this climate. Under the system above described there is ample room here for bodies of such dead as are buried in this place.

The crypts beneath the church we were unable to inspect as the entrances were sealed. We learned, however, that there are two small rooms (vaults), each containing some sixteen or eighteen niches. These two rooms are not connected, but each has a separate entrance into the church. These entrances which we saw are two openings in the floor of the church fitted with stone slabs and closed with cement. Only bones are placed in these crypts, the dead being first buried in an outside cemetery and removed to this place after a variable number of years (ten to fifteen), properly prepared and under proper supervision, to be sealed in one of the niches. We were informed that the niches were not all filled.

San Francisco.—In this church we found one vault under the floor of the church, reached by a stairway, the entrance to which was covered by rather light wooden hatches. The vault contains some twenty niches. The burials here are made as in Carmelitas, the bodies being first interred in an outside cemetery, the bones only transferred here. This place, so the priest in charge informed us, has room for only three more bodies (bones), and when these places are filled he is opposed to any attempt to make room for more. The place is reserved for the Order of St. Francis, and only a few burials occur here. The entrance to the vault is very poorly closed, and this is a subject for complaint from the priest in charge, whose living quarters are directly above on the next floor. The place had a close, confined odor, but nothing more. It appeared clean and dry.

Conclusions and recommendations.—Under the methods employed and under proper supervision we can see no objection to the burial of the dead in these places as it is practiced, and the only recommendation we have to make is that the entrance to the vault in San Francisco Church should be fitted with some better means of closing it, as sealing it with a stone slab or using heavy metal doors of some kind.

R. HERNANDEZ.
C. H. LAVINDER.

FEBRUARY 16, 1900.

COMMITTEE TO REPORT ON SAN JUAN WATER SUPPLY.

We, the undersigned committee, appointed to investigate the water supply of San Juan, have the honor to submit the following report:

Our inspection was made mainly with the view of suggesting some method of improving the potableness of the water, and we concerned ourselves not so much with the methods of obtaining and distributing the water as with the characteristics of the water supplied and its source.

Waterworks.—The waterworks are situated about 1 mile to the south of Rio Piedras, and the water is drawn from the Rio Piedras River at this point. The stream here is dammed with masonry, and the water, first drawn into a measuring tank, passes at once into three large connecting tanks or reservoirs of masonry. The capacity of these combined tanks is about 9,000,000 gallons. They serve the purpose, generally speaking, of storage and settling tanks, the water being drawn from each in turn to the last, from which it is pumped to another large reservoir, the capacity of which is about 2,850,000 gallons. This is situated on an eminence, being several feet above the highest point in the city. From this reservoir the water is distributed through large iron pipes by gravity to the city of San Juan. The waterworks are new, well arranged, and efficient.

Source of the water and its physical characteristics.—The bed of the river at the waterworks is of mud, and the stream for 2 or 3 miles above this point passes through country more or less flat and fairly well settled (inhabited). We were informed, moreover, that the farmers in this neighborhood raise a number of cattle, most of which frequent the banks of the stream, thereby polluting it. The engineer who was in charge when the works were built, Mr. Gerra, also informed us that after a rain the water at this point usually remained muddy from three to five days. It was muddy each time we inspected the place. We were further informed that the

stream just above this point is frequently polluted by washerwomen to a small extent. The water at the dam is muddy a great part of the time.

Proposed site.—It has been proposed to draw water from the same stream, about 2½ miles nearer its source, to the east. The engineer considers it feasible and advisable and has prepared the plans and estimates. We visited the proposed site. It is probably 6 miles from the source of the stream, into which two branches flow before it reaches this place. The surrounding country is mountainous and very sparsely inhabited. The bed of the stream is of rock (gneiss). The engineer informed us that he had inspected this stream and its two branches to their source and had found the same characteristics prevailing everywhere along its course, from the proposed site to the sources of the streams, rocky beds, mountainous and sparsely settled country, with very few cattle. The character of the banks of the stream is such that it would be difficult for cattle to reach it in most places. The engineer heartily indorses the proposed change for the following reasons:

1. The watershed is almost uninhabited and the country not well fitted for cattle grazing, thus leaving the stream unpolluted by animal filth.
2. The bed of the stream is rocky and water does not get very muddy after rains, and clears rapidly.
3. The cost will not be very great, as the water can be drawn to the reservoirs at the works by gravity, and the only work necessary will be the building of a dam and the laying of the pipes. Total cost, including sand filters, estimated at $25,000 gold.

Filtration.—The only other alternative for obtaining purer water is to continue drawing it from the present place and filtering it. This has been contemplated, and materials are ready for putting in a sand and gravel filter, the middle reservoir to be used for this purpose. The engineer, however, points out that it is not always feasible to filter large quantities of muddy water in this way, by reason of the fact that a moderate deposit of mud on the surface of the sand renders it almost impervious to water and necessitates constant and hence expensive cleaning and renewal of the filtering material. He further says that it is not the correct idea to attempt to filter muddy water in large quantities, but that clear water should be first obtained and that filtered, and he thinks that the proposed site will furnish a sufficient supply of clear water, which, he says, the present will not do.

Recommendations.—It is not well to forget that the Rio Piedras is quite a small stream, and although it will furnish, under existing arrangements of storage, etc., an ample supply of water for present purposes—about 100 liters to each inhabitant of San Juan, Santurce, and Rio Piedras daily—nevertheless, provision is not made for any decided increase in the number of inhabitants. At present, moreover, only about one-fourth of the houses of these places are supplied with water connections. The present franchise allows 1,250,000 gallons to be drawn daily from the river.

We have submitted specimens of the water taken from the present and proposed sites to the chemist of the board for analysis. He informed us, however, that he would need further specimens. While it is not possible to make positive statements without an analysis of the water, nevertheless it is believed that the present water leaves much to be desired as to its potableness, and that a remedy of some kind is at least advisable. From the statements of the engineer and our necessarily superficial inspection we believe that the proposed change in the site from which the water supply is drawn, with a method of sand and gravel filtration as suggested, would greatly improve the potableness of the water and obviate the present necessity of individual filtration. It is not to be forgotten, however, that while the watershed of the proposed site is at present uninhabited and desirable, it may not remain so. This could be insured, of course, only by purchasing and policing the shed itself. In view of the expenditure involved in the proposed change and the present scarcity of money, it might be wise to make some further investigations concerning the filtration of the present water.

Respectfully submitted.

R. HERNANDEZ, *Chairman*,
C. H. LAVINDER,
Committee.

NOTE.—All figures in the above report were given us by the engineer, Mr. Gerra, and we have made no attempt to verify them, as they are considered reliable.

THE COMMITTEE.

MEDICAL FEE BILL OF THE SUPERIOR BOARD OF HEALTH OF PORTO RICO.

Among the duties inherited by the superior board of health from the subdelegation of medicine and surgery was that of passing upon contests between physicians and patients or their estates regarding amount and payment of fees. The following

schedule was adopted by the board as a guide in its recommendation regarding any such cases submitted for its opinion:

Office practice.

Transient office call	$1.00
Ordinary office prescription	.50
Office consultation, in which a careful examination is required	$1.00– 5.00
Vaccination	1.00
Written opinion regarding the health of a patient	5.00
An opinion in which a question of law is involved	10.00–25.00
Gonorrhœa (in advance)	10.00–25.00
Syphilis (in advance)	50.00

General practice.

For first visit	$1.00–$5.00
For each subsequent visit	1.00– 2.00
For each subsequent visit on the same day	1.00– 2.00
For each additional person prescribed for in the same family	.50
For visit between 10 p. m. and 7 a. m	2.00– 5.00
For each consultation	3.00–10.00
For each subsequent visit of consultant	2.00– 4.00

Extra charges.

For all medicines furnished or hypodermic injection	$0.50
Examination of urine	$2.00– 5.00
Introducing catheter	1.00
Cupping	1.00– 3.00
Leeching	1.00– 3.00
Vaginal examination or treatment	1.00– 5.00
Rectal examination or treatment	1.00– 5.00
Injections, rectal	1.00– 2.00
Bleeding	1.00– 2.00
Administering an anæsthetic	3.00– 5.00

Obstetrical practice.

For ordinary cases of labor	$10.00–$25.00
For application of forceps (extra)	5.00– 15.00
For the operation of turning (extra)	10.00– 15.00
For the operation of craniotomy (extra)	25.00

For all visits over three, regular charges will be made.

An additional fee of $1 will be charged for each hour a physician is detained over four.

Surgery.

For reducing and setting fractures of the arm and leg	$10.00
For reducing and setting fractures of the thigh	$15.00– 25.00
For reducing and setting compound or comminuted fractures an additional fee of $10 to be added to the above.	
When fractures complicate joints, an extra fee of	5.00
For reducing recent luxation of shoulder	10.00
For reducing recent luxation of hip joint	25.00
For reducing recent luxation of other joints, from	5.00– 10.00
For reducing old luxation, an extra fee of	10.00
Amputation of arm and leg, with antiseptic dressing	30.00– 50.00
Amputation at shoulder or hip joint, with antiseptic dressing	75.00–150.00
Amputation of fingers and toes	5.00– 15.00
For resection of large bones or joints	75.00–150.00
For resection of small bones or joints	15.00– 25.00
For operation for fistula in ano	15.00
For the operation for lacerated cervix	50.00
For the operation for ruptured perineum	50.00
For the operation for hemorrhoids	10.00– 25.00
For the operation for vesico-vaginal or recto-vaginal fistula	50.00
For the operation for strangulated hernia	50.00

For the operation for the removal of nævi	$5.00–$25.00
For the operation for cleft palate	50.00
For the operation for harelip	25.00
For the operation of tracheotomy	25.00
For the operation of intubation	25.00
For the operation for radical cure of hydrocele	25.00
For the operation for phimosis and paraphimosis	5.00– 25.00
For the operation for stricture of urethra, radical cure	25.00
For tenotomy	5.00– 25.00
For trepanning	50.00–100.00
For ligation of arteries	10.00–100.00
For removal of foreign bodies from the ear, nose, pharynx, or œsophagus	1.00– 10.00
For reduction of hernia by taxis	3.00– 10.00
For aspirating chest or abdomen	5.00– 25.00
For removing polypus from uterus or rectum	10.00– 25.00
For tapping a hydrocele	5.00
For giving anæsthetics	3.00– 5.00
For post-mortem examination in case of legal investigation	50.00–100.00
For post-mortem at request of family	25.00– 40.00

When an anæsthetic is administered in any case of surgery, an additional fee of $5 will be charged.

Subsequent visits to be charged at the same rate as ordinary visits.

In addition to the above surgical charges, mileage will be charged at the rate as for ordinary practice. Necessary assistance in surgical operations to be charged as a consultant.

REGULATIONS PROMULGATED.

The board early appreciated the necessity existing on the island for modern laws controlling sanitation. It at once proceeded to formulate a set of regulations covering thoroughly the scope of its work. Under the existing military government acts became operative only when issued as general orders or circulars from the department headquarters. Parts of the proposed completed regulations, which were compiled soon after the organization of the board, were submitted from time to time to the military governor, and after due consideration most of them became law by such issue. The following are copies of these general orders and circulars recommended by the superior board of health, and issued prior to May 1, 1900:

GENERAL ORDERS, No. 142. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, September 18, 1899.*

With the concurrence of the superior board of health, General Orders, No. 101, current series, these headquarters, relating to the sale of fresh beef, are amended so as to remove the restriction upon the slaughter of pregnant cattle for beef, when not more than six months pregnant, such cattle being otherwise in healthy condition.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 151. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, September 27, 1899.*

The following orders are published for the information and guidance of all concerned:

PURITY AND WHOLESOMENESS OF FOODS, DRINKS, DRUGS, AND MEDICINES.

1. Foods and drinks, in the meaning of this order, are all articles used for food or drink by man, whether simple or compound. The term "drug" includes all medicines used by man, whether for internal or external use.

2. No adulterated articles of food or drink shall be made or sold in Porto Rico; articles ordinarily recognized as foods, which are really mixtures, may be sold if marked with the word "mixture" or "compound." No diseased, decomposed,

offensive, or unclean article shall be used in the manufacture of any food, drink, or medicine.

3. No person shall sell in Porto Rico any impure, diseased, decayed, or unwholesome provisions, or any adulterated bread, or any food substance mixed with a poisonous substance.

4. No person, whether owner, manager, keeper of, agent, bartender, or clerk, in any saloon, restaurant, boarding or eating house, in Porto Rico, shall offer for sale any food or drink containing anything poisonous or unwholesome.

5. No person owning, renting, or leasing any stall, room, or stand where milk, meats, vegetables, or groceries, are sold as food, shall fail to keep said room, stall, or stand, in a cleanly condition, nor shall such persons allow such milk, meats, vegetables, or groceries to become poisonous, or infected, or unfit for food by reason of uncleanly condition of such stall, room, or stand.

6. No person shall offer for sale in Porto Rico any unwholesome, watered, or adulterated milk, or milk produced from cows which are visibly diseased, or are kept upon and fed on garbage, swill, or other deleterious substances.

7. No person in Porto Rico shall sell any article of food or drug which is not of the nature, substance, and quality of the article demanded by any purchaser; and no person shall sell any compound food or drug which is not composed of ingredients in accordance with the demand of the purchaser.

8. No person in Porto Rico shall subtract from any article of food any part of it so as to affect injuriously its quality, substance, or nature; and no person shall sell any article so altered without making disclosure of the alteration.

9. All drugs sold must be of the standard quality and strength prescribed in the Spanish or United States pharmacopœias.

10. All compound, proprietary, patent, or secret remedies sold in Porto Rico, shall bear upon the bottle, box, or package, an exact formula stating the constituents of the medicine or remedy.

11. No pharmacist, not a legally qualified physician, shall prescribe remedies for the sick. Every bottle, box, or package containing any medicine or drug shall be labeled with the name of the same, and with the name of the physician who wrote the prescription. Pharmacists shall not sell arsenic, strychnine, or their compounds, or other drugs commonly known as deadly poisons, except upon the prescriptions of legally qualified physicians. Before such sale is made, the name of the drug and its quantity, the name of the physician prescribing, and also the name of the purchaser shall be entered in a book especially kept for the purpose. The purchaser shall sign his name in a book below the entry made by the druggist. Every bottle, box, or package containing a dangerous drug shall be distinctly labeled "poison," and the person shall be warned of the nature of the article.

12. Violation of the provision of this regulation shall, upon conviction, be punished with a fine of not less than $10 nor more than $200, or imprisonment for not less than five nor more than ninety days, at the discretion of the court.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 17.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, January 31, 1900.

I. The district courts instituted by General Orders, No. 114, series of 1899, from these headquarters, shall have jurisdiction over cases arising under General Orders, No. 151, series of 1899, from these headquarters, subject to the provisions of General Orders, No. 88, series of 1899, from these headquarters.

II. All fines collected under the provisions of the aforesaid orders shall be turned over to the treasurer of the superior board of health, and shall be used to maintain a chemical laboratory for the analysis of food, drinks, drugs, medicines, and such other substances as may be thought to be injurious to the public health. Any unexpended balance shall, at the end of each fiscal year, be turned into the insular treasury.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 87.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, April 25, 1900.

Upon the recommendation of the superior board of health, paragraphs 10, 11, and 12 of General Orders, No. 151, series of 1899, Headquarters Department of Porto Rico, are hereby revoked, and the following substituted therefor:

10. Paragraph 8, of article 11, of the Spanish tariff law in force immediately prior to the American occupation of Porto Rico prohibited the importation of "pharma-

ceutical preparations or secret remedies of unknown composition, or the formulas of which have not been published" (Aranceles de Aduanas. Disposición Undecima, art. 8). With a view to carrying out the provisions of this former law, it is hereby ordered that on and after July 1, 1900, all proprietary, patent, or secret remedies sold in Porto Rico shall bear upon the bottle, box, or package, a number which shall correspond with the number on a duly attested formula, stating the constituents of the medicine or remedy, which formula must be deposited in the archives of the superior board of health of Porto Rico. A fee of $25 will be paid to the superior board of health of Porto Rico for the registration of each formula deposited under the provisions of this paragraph; which money, after deducting the necessary expenses of registration, will be turned into the treasury and applied toward the support of the laboratory of the superior board of health.

11. No pharmacist, not a legally qualified physician, shall prescribe for the sick. Every bottle, box, or package containing any medicine or drug, must, when dispensed, be labeled with the name of the same, or if dispensed on prescription, with the number of the prescription and the name of the physician who wrote it, as well as that of the pharmacist who compounded it. Pharmacists will file all prescriptions dispensed by them, and must not sell arsenic, strychnine, or their compounds, or other drugs, commonly known as deadly poisons, except upon the prescriptions of legally qualified physicians. Before such sale is made the name of the drug and its quality, the name of the physician prescribing it, and also the name of the purchaser, shall be entered in a book especially kept for the purpose. The purchaser shall sign his name in the book below the entry made by the druggist. Every bottle, box, or package containing a dangerous drug shall be distinctly labeled "poison," and the purchaser shall also be warned of the nature of the article.

12. Violations of any of the provisions of this order, or of any remaining provisions of General Orders, No. 151, series of 1899, these headquarters, shall, upon conviction, be punished by a fine of not less than $10 nor more than $200, or by imprisonment for not less than five nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court. The district courts instituted by General Orders, No. 114, series of 1899, these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, series of 1899, these headquarters.

By command of Brigadier-General Davis:

WM. E. ALMY,
Acting Adjutant-General.

GENERAL ORDERS, No. 48.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, March 7, 1900.

General Orders, No. 17, current series, from these headquarters, is revoked, and the following substituted therefor:

I. The district and municipal courts instituted by General Orders, No. 118, series of 1899, from these headquarters, shall have concurrent jurisdiction over cases arising under General Orders, No. 151, series of 1899, from these headquarters, subject to the provisions of General Orders, No. 88, series of 1899, from these headquarters. The United States provisional court shall exercise jurisdiction over all cases arising under General Orders, No. 151, series of 1899, from these headquarters, where the accused party is exempt from the jurisdiction of the insular courts.

II. Subject to the approval of the military governor, the superior board of health is authorized to employ assistants, agents, and inspectors for the proper enforcement of General Orders, No. 151, series of 1899, from these headquarters.

The said assistants, agents, and inspectors shall have full access, ingress, and egress to and from all places of business, factories, farms, buildings, carriages, cars, vessels, and packages used in the manufacture, sale, or transportation of, or containing, food or drug substances. They shall also have power and authority to demand and to receive, after tendering compensation, samples for analysis of all foods and drugs which may be manufactured, sold, or exposed for sale in Porto Rico.

III. All fines collected under the provisions of the aforesaid orders by the United States provisional or insular district courts shall be turned over to the treasurer of the island, and shall be used under the direction of the superior board of health, the one-half, or so much as may be necessary, to maintain a chemical laboratory for the analysis of foods, drinks, drugs, medicines, and such other substances as may be thought to be injurious to the public health, the other half to be kept as a fund for the enforcement of this act, in payment to inspectors, assistants, agents, experts, counsel, or informers, said payments to be made upon vouchers signed by the president

and secretary of the superior board of health. All such fines collected by the municipal courts shall be turned into the municipal treasury for the benefit of the municipality.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 153.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, September 30, 1899.

In view of the fact that the powers and duties formerly possessed by the subdelegations of medicine and surgery and of pharmacy of Porto Rico have been transferred to the superior board of health, and that the safety of the public may be endangered by incompetent physicians and surgeons, pharmacists, dentists, midwives, and practicantes pursuing their avocations, the following orders are issued:

I. That in place of the subdelegations of medicine and surgery, pharmacy, etc., of Porto Rico, an examining committee shall be appointed by the superior board of health, to consist of three graduates in medicine and surgery, of not less than ten years' standing, and of recognized ability in their professions; two graduates in pharmacy, and one graduate in dentistry, possessing the same professional standing. This committee shall be divided into subcommittees for the work of examination.

II. The superior board of health of Porto Rico will make and adopt for the examining committee all necessary rules and regulations and by-laws not inconsistent with existing laws and regulations or with the Constitution of the United States.

III. The said examining committee shall meet and organize in the city of San Juan within one month after the appointment of its members is made. The superior board of health shall provide a place for the meetings of the examining committee. All the records and papers of all kinds, formerly belonging to the subdelegation of medicine and surgery and to the subdelegation in pharmacy, shall be deposited with the superior board of health.

IV. All fees received by the committee shall be turned in to the treasurer of the superior board of health. After the payment of legitimate expenses, the balance shall be divided among the members of the committee in such manner that each member shall receive his proportionate share of the fees received from all the persons he actually examines. The recorder will receive a proportionate share of all the fees received.

V. At the first meeting the members shall draw lots for the terms of service. The two persons whose names are first drawn shall serve one year; the two whose names are next drawn shall serve two years, and the two whose names are last drawn shall serve three years. The superior board of health shall, on January 1 of each year, appoint two members, who shall serve three years. A president and a recorder shall be appointed by the superior board of health on the same date.

EXAMINATIONS.

VI. The examining committee shall hold examinations for those whose desire to practice medicine and surgery, pharmacy, and dentistry in Porto Rico; also for practicantes, midwives, and professional nurses at such times as the superior board may direct.

VII. All applications under the classes named, desiring licenses to practice their professions or occupations in Porto Rico, shall first present their diplomas or certificates to the secretary of the superior board of health, together with a certificate signed by two responsible persons, as to the good moral character of the applicant. If an examination of these papers proves satisfactory, the secretary will issue a permit to the applicant to appear before the examining committee for examination.

VIII. The questions used shall first be submitted to the superior board of health, and after being approved, the same questions shall be used with all individuals of one class applying at one time for examination. All examinations shall be in writing and subject to such rules and regulations as the superior board of health shall, from time to time, prescribe.

IX. After each examination the examining committee shall, without unnecessary delay, act upon the same. An official report of such action, signed by the chairman, recorder, and each member present, stating the subject of the examination, average of each candidate in each branch, the general average, and the result of each examination, whether successful or unsuccessful, shall be forwarded to the superior board of health. Said report shall embrace all the examination papers and questions and answers thereto. All such examination papers shall be kept for reference or inspection for a period of not less than five years.

X. On receiving from the examining committee an official report of the result of any examination of any applicant for license, the superior board of health, if it approve the report, shall forthwith issue to each successful applicant, adjudged by the examining committee qualified to practice medicine and surgery, or the other branches named in this order, a license to practice same in Porto Rico, signed by the members of the examining committee who actually examined the applicant, and by the officers of the superior board of health, and attested by its seal.

Before any license shall be issued by the superior board of health, it shall be recorded in a book to be kept in its office, and the number of the book and the page therein containing such recorded copy shall be noted on the face of said license. Said records shall be open to public inspection, under proper restrictions as to their safe-keeping, and in all legal proceedings shall have the same weight as evidence that is given to the conveyance of land.

XI. In case any applicant should fail in his examination before the examining board, he may reappear, on approval of the superior board of health, at any subsequent examination after six months and within two years, without payment of any additional fee.

XII. Applicants who possess diplomas from reputable medical or dental colleges, and who have been licensed by State boards, after an examination, may, upon the payment of the fee of $25, be licensed by the superior board of health without examination if the superior board of health so decides.

XIII. The fees established by the superior board of health for examinations are as follows:

(*a*) For examination of physicians and surgeons, dentists, and pharmacists, $25.
(*b*) For practicantes, $15.
(*c*) For professional nurses, $10.
(*d*) For midwives, $5.

These fees shall not be returned in case of failure in examination.

For the issue and registration of a license by the superior board of health the fee shall be, for a physician and surgeon, dentist, or pharmacist, $5, and for all others, $1. The money received from such fees, as well as those mentioned in Paragraph XII, shall, after deducting the necessary expenses, be turned into the insular treasury.

XIV. No person shall practice medicine and surgery, or the other branches enumerated in this regulation, in Porto Rico, until the provisions of this regulation are complied with, except such persons as have secured the right under the Spanish Government. These will receive the license of the superior board of health upon the payment of the fee for the issue and registration of the same. Medical officers, serving in the Army and Navy of the United States, or in the United States Marine-Hospital Service, are exempt from the requirements of this paragraph.

XV. For the purpose of advertising the first examinations and for necessary stationery, an appropriation of $100 is made.

By command of Brigadier-General Davis:

C. H. HEYL,
Major, Inspector-General, U. S. A., Acting Adjutant-General.

GENERAL ORDERS, No. 191.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, November 27, 1899.

I. Paragraphs XII and XIV, General Orders, No. 153, current series, these headquarters, are revoked, and the following substituted therefor:

"XII. Applicants who possess diplomas from reputable medical or dental colleges or schools of pharmacy, and who have been licensed by State boards, may, upon the payment of the fee of $25, be licensed by the superior board of health without examination, if the superior board of health so decides."

"XIV. No person shall practice medicine and surgery or the other branches enumerated in this order, in Porto Rico, until the provisions of this order are complied with, except such persons as had secured the right by license or toleration under the Spanish Government in Porto Rico, or had been duly authorized to practice by the military government of the United States previous to July 1, 1899. These must procure a license from the superior board of health, which they will receive upon the payment of the fee of $5, for the issue and registration of the same: *Provided*, That this order does not prohibit practice in consultation only, by distinguished members of the medical profession who may be temporarily sojourning in Porto Rico, or who may be called from abroad for this specific purpose.

"Medical officers serving in the Army or Navy of the United States, or in the United States Marine-Hospital Service, are exempt from the requirements of this paragraph."

II. Paragraph I, of the Spanish translation of General Orders, No. 170, current series, these headquarters, is hereby amended to read with the words *Disenteria epidemica* omitted, in order that the same may conform to the English text.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 163. HEADQUARTERS DEPARTMENT OF PORTO RICO, SAN JUAN, *October 14, 1899.*

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III. Any person guilty of violation of any of the provisions of General Orders, No. 153, current series, from these headquarters September 30, 1899, shall upon conviction thereof be punished by a fine of not less than $10 or more than $200, United States currency, or imprisonment for not less than ten or more than ninety days, or by both such fine and imprisonment at the discretion of the court.

The district courts instituted by General Orders, No. 114, current series, from these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, current series, from these headquarters.

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By command of Brigadier-General Davis.

C. H. HEYL,
Lieutenant-Colonel, Inspector-General, U. S. V., Acting Adjutant-General.

GENERAL ORDERS, No. 170. HEADQUARTERS DEPARTMENT OF PORTO RICO, SAN JUAN, *October 24, 1899.*

The following is published for the information and guidance of all concerned:

INTERIOR QUARANTINE.

Certain diseases are so readily communicated from person to person, or pass through whole communities in some way yet unknown to the medical profession, that physicians and educated laymen alike agree that restrictive measures are necessary to prevent the spread of these diseases, and the consequent loss of life and the demoralization of business which almost always follow the advent of epidemic diseases. With these facts in mind, the superior board of health advises the promulgation of the following measures for interior quarantine:

CONTAGIOUS AND INFECTIOUS DISEASES.

1. The following diseases are considered quarantinable, and for the protection of the public health are placed under control of boards of health, viz: Cholera, smallpox, diphtheria, scarlet fever, typhus fever, yellow fever, epidemic cerebro-spinal fever, leprosy, glanders, and oriental or bubonic plague.

PHYSICIANS TO MAKE CERTAIN REPORTS.

2. It shall be the duty of every practicing physician in Porto Rico to report immediately to the board of health or other authority, and to the superior board of health, by telegraph or in the most expeditious way, every case of yellow fever, smallpox, or other quarantinable disease which comes within his knowledge.

3. Local boards of health, municipal health officers, or other proper authorities in the island of Porto Rico must immediately notify the superior board of health by telegraph or by letter of the existence of any of the above-named quarantinable diseases in their respective localities.

4. Whenever a physician shall report a suspicious case of disease, it shall be the duty of the board of health, city physician, or other proper authority, to take such suitable precautions as shall be judged best for the safety of the inhabitants, by isolating it at the home of the patient or by removing the patient to a hospital, or other suitable place, until further instructions are received from the superior board of health.

5. All persons practicing medicine and surgery, or, in their absence, any head of a family in Porto Rico, who shall visit or be visited by any person suffering from any

one of the quarantinable diseases mentioned in paragraph 1 of this order, shall at once report it in writing to the board of health or the health officer in their district, signing the report with their own name, and stating the age, sex, color, occupation, and residence of the patient.

GENERAL REGULATIONS.

6. Upon receipt by a board of health, or by a health officer, or by other proper authority of the report of the existence of a case of quarantinable disease, there shall within twenty-four hours after its verification be caused to be placed upon the house, room, or premises, where the disease exists, a yellow placard, on which shall be printed in large letters the name of the disease, and this placard shall be removed only by authority of the health officer: *Provided, however,* That in lieu of a placard a guard or guards may be placed upon the house by the board of health.

7. The head of the family shall be liable to fine or imprisonment should any such placard upon his or her house be unlawfully removed, defaced, covered up, taken down, or destroyed with his or her consent.

8. Bodies of persons dead of quarantinable diseases should be at once, without washing, wrapped in a sheet saturated with a strong solution of mercuric chloride, 1 to 500, and placed in a coffin, in which it shall be buried within twelve hours after death.

9. The interment of a body dead of a quarantinable disease must be strictly private, and may be attended only by the immediate relatives and the necessary coffin bearers. The body must not be taken into any church, chapel, public hall, or public building for the holding of funeral services. No head of a family, no undertaker who officiates, and no sexton, janitor, or person in charge of the church, chapel, or public building, shall violate any of these provisions.

10. All draperies should be removed from the hearse used to convey the body of a person dead of a quarantinable disease, and it and the carriages employed to convey the mourners to the cemetery shall immediately thereafter be thoroughly disinfected by the undertaker, as required by the health officer.

11. After the termination of a case of quarantinable disease, the premises where such disease existed shall be thoroughly disinfected, as the health officer shall direct, and the bedding, clothing, and other infected articles destroyed or disinfected, as he shall require. (See paragraphs 48 and 49 of this order.)

12. The children or persons belonging to or residing with a family in which a quarantinable disease exists shall not be permitted to attend any public, private, parochial, Sunday, or other school, and all school principals, superintendents, or other persons in charge of such schools, are required to exclude such children or persons therefrom until such time as the health officer or other authorized person shall give the exposed children or other persons a certificate that they are free to enter school.

13. In all cities of over 10,000 population it shall be the duty of the health officer to furnish daily, by mail or otherwise, to the superior board of health, a written or printed notice containing the names and residence of all children suffering from any quarantinable disease mentioned in paragraph 1 of this order.

14. It is expressly forbidden that any person suffering from any of the quarantinable diseases mentioned in paragraph 1 of this order shall willingly expose himself or herself in any street or public place or in any public conveyance; neither shall any person in charge of one so suffering thus expose the sufferer.

15. No person suffering from any of the quarantinable diseases enumerated in paragraph 1 of this order shall enter or hire any public vehicle, car, steamboat, or other means of public conveyance, without first notifying the owner or person in charge of said conveyance of his disease. Immediately after the sick person leaves the conveyance it shall be disinfected, as the health officer shall direct.

16. No person suffering from a quarantinable disease shall knowingly be permitted to pass from one town or district to another, and no common carrier shall accept such person as a passenger except on an order of the superior board of health.

17. No person shall give, lend, sell, transmit by mail, express, or otherwise, any bedding, rags, clothing, or any other articles which have been exposed to infection through the quarantinable diseases mentioned in paragraph 1 of this order.

18. No person shall knowingly let any room, house, or part of a house, in which there has been a person suffering from any of the quarantinable diseases mentioned in paragraph 1 of this order without having such room, house, or part of a house, and all articles therein liable to infection, previously disinfected, as directed by the health officer.

19. Upon the death of a person from tuberculosis, the attending physician should immediately report the fact to the local health authorities, who shall cause the

apartments and contents occupied and used by the deceased to be disinfected, objectionable articles destroyed, and the walls and floors scraped and painted or whitewashed.

VACCINATION COMPULSORY.

20. All infants must be vaccinated before reaching the age of 6 months, and all inmates of public institutions at time of admission. All employers of labor are required to see that all their employees are properly vaccinated.

21. No person, teacher, or scholar who has not had smallpox shall become a member of any school until vaccinated, and until he or she shall show to the principal of the school a certificate of successful vaccination. Principals of schools are required to demand certificates of vaccination from their pupils.

22. The school directors or other persons in charge of schools are required to demand certificates of vaccination of all teachers who have not had smallpox before granting them appointments to teach.

YELLOW FEVER.

23. Yellow fever is an infectious but controllable disease. Its germs probably pass from the body of those infected in all of the excretions.

24. When the excretions become dry on clothing or on floors, etc., they form dust, which enters the air and thence the human body. It is probable that, in the main, the disease is spread in this manner, but it may possibly also be disseminated by particles entering food and drink.

25. The control of the disease in any single case rests in confining the germs to the clothing of the patient, or at the least by not letting them escape from the sick room.

26. When yellow fever is threatened, boards of health should secure vacant houses in especially isolated localities. These should be thoroughly cleaned and whitewashed.

27. In case such houses can not be found, temporary hospitals or tents may be erected.

28. Nurses who are immune from this disease should be secured for the emergency.

29. It should be seen that there is a liberal supply of bichloride of mercury in the city or town; also of lime for whitewashing.

30. Where sanitary rules and regulations are best observed yellow fever does not reside, and if introduced, seldom remains long.

31. The period of incubation is five days. All persons who have been exposed should be held under the strictest quarantine for this period. Laundresses who have washed for suspects have been exposed to possible infection.

32. Patients may be safely moved for the first two days of their sickness. They should be carried on a comfortable litter, and not allowed to sit up or to exert themselves in the least. A clean nightshirt should always be placed on the patient before moving him. All his bedding and night clothes should be left in his room to be disinfected or burned.

33. Houses from which the sick have been removed should be disinfected by burning sulphur in them for twelve hours, or formaldehyde may be used as a disinfectant. The house and the surroundings should also be thoroughly cleaned. (See paragraphs 48 and 49 of this order.)

34. Nurses must not wear woolen clothing of any kind. They should change their clothing whenever it becomes in the least soiled, and always twice a day, when nursing yellow-fever cases, and the discarded clothing must be placed in bichloride solution.

35. Whenever nurses handle the patient or his excreta, they should at once wash their hands in a disinfecting solution.

MANAGEMENT OF A CASE OF YELLOW FEVER IN THE PATIENT'S OWN HOUSE.

36. A sanitary inspector, who is immune and who can be absolutely relied upon, should be placed in the house, and he should prevent anyone from entering or leaving it. A card with "Yellow Fever" printed in large letters, should be placed upon the house. But one member of the family should be allowed to act as nurse. Other members of the family should not visit the sick room or leave the premises. In cases of crowded houses inmates should be removed to the country and held in quarantine in an isolated place for ten days.

37. Select the most suitable room in the house, from which remove all unnecessary furniture, rugs, and ornaments. Change the patient's shirt, carry him into the room, and place him in a clean bed.

38. In this room the fight must be made and won. Success depends upon destroying the germs, which, emanating from the patient's excretions, lodge in the clothing, bedding, bedpans, etc., and infect the air of the room and the whole house. These germs are destroyed by placing all clothing, bedding, and excreta from the patient in tubs or vessels containing strong disinfectants.

MANAGEMENT OF PATIENT'S CLOTHING IN CASES OF YELLOW FEVER.

39. Have in the sick room a large tub one-third full of solution of mercuric chloride and hydrochloric acid, 1 to 1,000, made by adding 1 dram each of the bichloride and hydrochloric acid to 1 gallon of water. The bedclothing, the patient's clothing, the rugs, towels, handkerchiefs, etc., used for cleaning and sponging, must be placed at once in the tub of disinfectant solution upon being removed from the patient. These should remain in the solution at least five hours, when they may be wrung out and washed. The tub should be emptied into the privy, and, after being washed inside and out with bichloride solution, should again be placed in the sick room and filled with disinfectant solution. If a quilt or mattress is soiled, it should be thoroughly washed, where soiled, with bichloride solution. Very much soiled articles should be burned. If clothing is changed twice a day and carefully placed in the disinfectant solution, the germs will be destroyed and will not get into the room to spread the disease. If clothing is soiled with fæces, urine, or vomit, it should be changed at once and placed in the tub of disinfectant.

DISPOSITION OF THE EXCRETA AND WASTE IN CASES OF YELLOW FEVER.

40. Have ready a gallon of a solution of acid mercuric chloride, 1 to 500, made by placing 2 drams each of mercuric chloride and hydrochloric acid in a gallon of water. Mix the urine at once, when passed, with an equal amount of this solution. Treat the fæces in the same manner and let the mixture stand at least five hours before throwing it into the privy. If the fæces are solid, break them up and let them stand in the vessel for seven hours, then throw the contents into the privy. Wash the chamber vessel inside and out with the disinfectant solution every time it is emptied.

41. In place of handkerchiefs use rags, which burn at once after using. Treat all vomited matter and all discharges from the nose and mouth the same as urine or fæces, by disinfecting in the bichloride solution.

42. Should any fæces, urine, vomit, or sputum get upon the floor, furniture, or walls, wash it off with a rag saturated with the bichloride solution and place the rag in the disinfectant solution.

43. The water used to sponge the patient and to rinse out his mouth, as well as the moppings and washings of floors and furniture, should all be placed in the bichloride solution for five hours before being thrown out. The room must never be swept, but mopped up with a mop wet with a solution of bichloride, 1 to 1,000.

44. Glasses, spoons, plates, etc., used about the patient and in the room must be boiled each time after such use. The nurses' clothing must be placed in the bichloride solution at once on being changed.

45. The nurses must keep their hands absolutely clean.

THE DISINFECTION OF A PATIENT AFTER RECOVERY FROM YELLOW FEVER.

46. When a patient has recovered wash him all over with a tepid solution of mercuric chloride, 1 to 1,000, and follow this with a wash of tepid water, under direction of attending physician. Place on him clean, disinfected clothes. Disinfect all the bedding, clothing, etc. Burn all toys, books, etc., used by the patient.

DISPOSAL OF THE CORPSE.

47. See paragraphs 8 and 9 of this order.

DISINFECTION OF THE ROOM IN WHICH A PATIENT HAS BEEN SICK WITH YELLOW FEVER.

48. The openings of the room should all be closed, drawers and closets should all be opened, and sulphur should be burned in the room at the rate of not less than 6 pounds for each 1,000 cubic feet of space. The sulphur is ignited by adding a little alcohol or kerosene. The room should be closed for twenty-four hours and then thrown open. After thorough ventilation for twenty-four hours, the walls, floors,

ceilings, and furniture should be well sprinkled with a solution of mercuric chloride, 1 to 1,000, and afterwards washed down with warm water.

49. If the walls are papered the paper should be torn off and burned; if the walls are plastered they should be given a coat of whitewash.

CASES OF YELLOW FEVER AMONG THE POOR.

50. The most difficult cases are those occurring among the poor. Boards of health which guard the public welfare must provide nurses, houses, or tents for the patients and also for the families (which must be isolated), clothing for patients and suspects, physicians, food—in a word, all the appliances necessary to fight and conquer the disease and maintain the lives of the infected people. All this must be done at the public expense, because thereby the public is protected. A strict compliance with these suggestions should prevent the spread of yellow fever.

PREVENTION OF BLINDNESS.

51. Thirty per cent or more of existing blindness has been shown to be due to infection of the eyes at or shortly after birth. This infection being readily amenable to treatment, it is ordered that whenever in any city, district, or place in this island any nurse, midwife, or other person, not a legally qualified practitioner of medicine, shall notice any inflammation of the eyes or redness of the lids in a newborn child under his or her care, it shall be the duty of such person to report the same to some legally qualified practitioner of medicine within twelve hours of the time the disease is first noticed.

52. It shall be the duty of every legally qualified practitioner of medicine to treat all cases of "opthalmia neonatorum" by the Credé method, which is as follows:

53. Gently open the lids and wash out the eyes with pure lukewarm water, which has been boiled, using a clean soft piece of old linen or muslin or a pledget of absorbent cotton, but do not use a sponge.

54. Then immediately drop in each eye one or two drops of a 1 per cent solution of nitrate of silver and continue its use so long as it may be necessary.

55. Half an hour after each application of the silver solution wash the eyes with warm salt and water, (a teaspoonful of table salt to a pint of boiled water) or with a solution of boric acid (10 grains to 2 tablespoonfuls of boiled water), and continue this last application every hour or two until the eyes are well, gradually lengthening the time.

56. This disease is very contagious, even to grown persons; therefore burn or boil all cloths that have touched the eyes, avoid kissing the child, wash the hands after bathing the child's eyes, and allow no one else to use the same basin in which the child is bathed.

PENALTY.

57. Any person guilty of violation of any of the provisions of this order shall, upon conviction thereof, be punished by a fine of not less than $10 nor more than $200, United States currency, or imprisonment for not less than ten nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court.

58. The district courts instituted by General Orders, No. 114, current series, from these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, current series, from these headquarters.

By command of Brigadier-General Davis:

C. H. HEYL,
Lieutenant-Colonel, Inspector-General, U. S. V.,
Acting Adjutant-General.

GENERAL ORDERS, No. 181.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, November 18, 1899.

Paragraph XI, General Orders, No. 102, current series, from these headquarters is amended to read as follows:

To require all health officers, health boards, alcaldes, and municipal judges throughout the island to forward to the superior board of health copies of all their sanitary and vital statistics reports and publications and such other sanitary information as it may request. To require municipal judges, or other proper officers, to report to

the superior board of health monthly the names of all foreigners dying in their municipalities, together with the age, nativity, occupation, cause and place of death, and place of interment, so far as these can be ascertained.

To require reports and information concerning such matters or particulars, in respect to which, it may, in its opinion, need information for the proper discharge of its duties, from all public dispensaries, hospitals, asylums, infirmaries, prisons, penitentiaries, schools, and from the managers, principals, and officers thereof, and from all other public institutions, their officers and managers, and from the proprietors, managers, lessees, and occupants of all places of public resort throughout the island.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 221. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, December 19, 1899.*

Upon the recommendation of the superior board of health, the following order is published for the information of all concerned:

I. Glanders, anthrax, hydrophobia, and tuberculosis are diseases of domestic animals dangerous to human beings.

II. Any animals believed to be suffering from hydrophobia must be killed at once and burned or buried deeply in the earth. Owners of "mad" dogs must not tie them up, but must kill them at once.

III. Any domestic animal suffering from glanders, anthrax, or tuberculosis is declared to be a nuisance, dangerous to public health, and should be killed and buried or burned in order that the disease may not spread to other animals, or to human beings.

IV. Whenever an animal is reported to an alcalde or board of health to be suffering from a dangerous disease, it shall be the duty of the alcalde or board of health to notify the municipal physician to inspect the animal and report the disease from which it suffers.

V. In case the animal has glanders, anthrax, or tuberculosis, the alcalde shall appoint a jury of three intelligent and upright citizens of the barrio in which the owner lives, who shall proceed to view the animal and to appraise it, the actual value of the animal at that time being stated, and not the value before it was taken with the disease. The value placed upon the animal shall be set down and the paper signed by all the appraisers and then given to the alcalde.

VI. Immediately after the appraisement the owner shall kill the animal and burn or bury it deep in the earth.

VII. The alcalde shall give to the owner a voucher or bill for two-thirds of the appraised value of the animal. This voucher shall be paid by the municipal treasurer from any unappropriated moneys in his hands.

VIII. The alcalde shall at once forward to the superior board of health in San Juan the number of animals killed, the name of the diseases from which they suffered, and the appraised value of the same.

IX. In case the municipal physician is unable to diagnose the diseases from which animals suffer, the superior board of health may send an expert inspector who shall examine the cases and report to said board. Such inspectors shall be paid from the appropriation of the superior board of health made for this purpose.

X. In case any inspector shall report to the superior board of health the existence of any of the above-named diseases in any portion of Porto Rico, the secretary of said board shall notify the alcalde in whose jurisdiction the animals are to appraise and have the same killed, which the alcalde shall at once proceed to do.

PENALTY.

XI. Any persons guilty of the violation of any of the provisions of this order shall, upon conviction thereof, be punished by a fine of not less than $10 nor more than $200, United States currency, or imprisonment for not less than ten nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court.

The district courts instituted by General Orders, No. 114, current series, from these headquarters shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, current series, from these headquarters.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

CIRCULAR No. 44.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, December 14, 1899.

The superior board of health of Porto Rico has submitted the following rules governing vaccination, which are approved, and will be obeyed to enable the requirements of paragraphs 20, 21, and 22, of General Orders, No. 170, current series, from these headquarters to be carried out:

1. A certificate of vaccination will be given without charge by the municipal physician to all persons successfully vaccinated by him or his assistants.

2. Vaccinators will report monthly to the municipal judge and to the secretary of the superior board of health, on blanks supplied by that board, the names of all persons successfully vaccinated.

3. It shall be the duty of each alcalde to appoint one or more public vaccinators, and to announce to all the people of his municipality, by hand bills and by advertisement in the papers, the places and dates where the vaccinations will be performed.

4. The superior board of health will furnish virus free to all municipal physicians, who are required to vaccinate, free of expense, all persons who apply to them at the appointed places, on the dates set by that board. The board will also furnish blank certificates and all other necessary blanks.

PENALTY.

5. Any person guilty of the violation of any of the provisions of this circular shall, upon conviction thereof, be punished by a fine of not less than $10 nor more than $200. United States currency, or imprisonment for not less than ten nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court.

6. The district courts instituted by General Orders, No. 114, current series, from these headquarters shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders No. 88, current series, from these headquarters.

7. The superior board of health will supply free virus to all municipal physicians on the following dates:

(1) Adjuntas, January 1 to 15 and August 1 to 15, 1900.
(2) Aibonito, January 1 to 15 and August 1 to 15, 1900.
(3) Aguada, January 1 to 15 and August 1 to 15, 1900.
(4) Aguadilla, January 1 to 15 and August 1 to 15, 1900.
(5) Aguas Buenas, January 1 to 15 and August 1 to 15, 1900.
(6) Añasco, January 1 to 15 and August 1 to 15, 1900.
(7) Arecibo, January 16 to 31 and August 16 to August 31, 1900.
(8) Arroyo, January 16 to 31 and August 16 to 31, 1900.
(9) Barranquitas, January 16 to 31 and August 16 to 31, 1900.
(10) Barros, January 16 to 31 and August 16 to 31, 1900.
(11) Barceloneta, January 16 to 31 and August 16 to 31, 1900.
(12) Bayamón, January 16 to 31 and August 16 to 31, 1900.
(13) Carolina, February 1 to 14 and September 1 to 15, 1900.
(14) Caguas, February 1 to 14 and September 1 to 15, 1900.
(15) Ciales, February 1 to 14 and September 1 to 15, 1900.
(16) Camuy, February 1 to 14 and September 1 to 15, 1900.
(17) Corozal, February 1 to 14 and September 1 to 15, 1900.
(18) Cabo Rojo, February 1 to 14 and September 1 to 15, 1900.
(19) Coamo, February 1 to 14 and September 1 to 15, 1900.
(20) Cayey, February 15 to March 1 and September 16 to 30, 1900.
(21) Cidra, February 15 to March 1 and September 16 to 30, 1900.
(22) Comerío, February 15 to March 1 and September 16 to 30, 1900.
(23) Culebra, February 15 to March 1 and September 16 to 30, 1900.
(24) Dorado, February 15 to March 1 and September 16 to 30, 1900.
(25) Fajardo, February 15 to March 1 and September 16 to 30, 1900.
(26) Guayama, March 1 to 15 and October 1 to 15, 1900.
(27) Guayanilla, March 1 to 15 and October 1 to 15, 1900.
(28) Gurabo, March 1 to 15 and October 1 to 15, 1900.
(29) Hatillo, March 1 to 15 and October 1 to 15, 1900.
(30) Hato-grande, March 1 to 15 and October 1 to 15, 1900.
(31) Humacao, March 1 to 15 and October 1 to 15, 1900.
(32) Isabela, March 16 to 31 and October 16 to 31, 1900.
(33) Juana Diaz, March 16 to 31 and October 16 to 31, 1900.
(34) Juncos, March 16 to 31 and October 16 to 31, 1900.
(35) Lares, March 16 to 31 and October 16 to 31, 1900.
(36) Las Marias, March 16 to 31 and October 16 to 31, 1900.
(37) Lajas, March 16 to 31 and October 16 to 31, 1900.

(38) Manatí, April 1 to 15 and November 1 to 15, 1900.
(39) Morovis, April 1 to 15 and November 1 to 15, 1900.
(40) Mayagüez, April 1 to 15 and November 1 to 15, 1900.
(41) Maricao, April 1 to 15 and November 1 to 15, 1900.
(42) Maunabo, April 1 to 15 and November 1 to 15, 1900.
(43) Moca, April 1 to 15 and November 1 to 15, 1900.
(44) Naguabo, April 16 to 30 and November 16 to 30, 1900.
(45) Naranjito, April 16 to 30 and November 16 to 30, 1900.
(46) Patillas, April 16 to 30 and November 16 to 30, 1900.
(47) Peñuelas, April 16 to 30 and November 16 to 30, 1900.
(48) Piedras, April 16 to 30 and November 16 to 30, 1900.
(49) Ponce, April 16 to 30 and November 16 to 30, 1900.
(50) Quebradillas, May 1 to 15 and November 16 to 30, 1900.
(51) Rio Grande, May 1 to 15 and November 16 to 30, 1900.
(52) Rio Piedras, May 1 to 15 and December 1 to 15, 1900.
(53) Rincón, May 1 to 15 and December 1 to 15, 1900.
(54) San Sebastián, May 1 to 15 and December 1 to 15, 1900.
(55) Sabana Grande, May 1 to 15 and December 1 to 15, 1900.
(56) San German, May 16 to 30 and December 1 to 15, 1900.
(57) Salinas, May 16 to 30 and December 1 to 15, 1900.
(58) San Juan, May 16 to 30 and December 1 to 15, 1900.
(59) Santa Isabel, May 16 to 30 and December 1 to 15, 1900.
(60) Toa Alta, May 16 to 30 and December 16 to 31, 1900.
(61) Toa Baja, May 16 to 30 and December 16 to 31, 1900.
(62) Utuado, June 1 to 15 and December 16 to 31, 1900.
(63) Vega Alta, June 1 to 15 and December 16 to 31, 1900.
(64) Vega Baja, June 1 to 15 and December 16 to 31, 1900.
(65) Vieques, June 1 to 15 and December 16 to 31, 1900.
(66) Yabucoa, June 1 to 15 and December 16 to 31, 1900.
(67) Yauco, June 1 to 15 and December 16 to 31, 1900.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 28. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, February 7, 1900.*

Upon the recommendation of the superior board of health, the following order is published for the information of all concerned:

I. The superior board of health will, from time to time, publish in the Official Gazette and by circulars the names of all physicians and surgeons, dentists, pharmacists, practicantes, midwives, and nurses who have secured licenses to practice their respective professions or callings in Porto Rico, according to the provisions of General Orders, No. 153 and 191, series 1899, these headquarters.

II. It is hereby made the duty of all alcaldes in Porto Rico to notify each and every person whose name does not appear in the aforesaid lists, and who shall attempt to practice medicine and surgery, pharmacy, dentistry, minor surgery, midwifery, or professional nursing in their respective municipalities, to at once desist from same until the provisions of the above-named orders have been complied with.

III. In case such persons so notified make further attempt to practice their professions or callings without the required license, the alcalde will immediately file information with the fiscal of the district court within whose jurisdiction the offense was committed, who will cause the offenders to be arrested, and take the necessary steps to bring them to trial.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 66. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, March 29, 1900.*

Upon the recommendation of the superior board of health, the following order is published for the information of all concerned:

I. A board of health shall be established in each municipality, to be constituted as follows: The alcalde, a municipal physician, the president of the school board, and the president of the board of charities, all of whom must be residents of the municipality in which they are to serve. Where there are more than one municipal physician the other members shall elect one of these to be a member of the board.

II. The alcalde shall be president, the municipal physician shall be health officer of the board, and the board shall elect a secretary from its other members.

III. The board shall hold one regular meeting each month, and special meetings shall be held at any time upon the call of the president or by request of any two members. At special meetings only the business designated in the call shall be transacted. Three members shall constitute a quorum for the transaction of business.

IV. An estimate shall be placed in the municipal budget each year sufficient to cover the expenses of the board of health.

V. The municipal judge shall on or before the 5th day of each month furnish the board of health with a report of the vital statistics of the municipality for the month immediately preceding.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 67.

HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, March 29, 1900.*

Upon the recommendation of the judicial board and the superior board of health, the following is published for the information of all concerned:

I. It shall be the duty of each municipality in Porto Rico to provide in its annual budget for the payment of municipal physicians and practicantes for medical attendance upon the poor, and for medicines for the same class. Money appropriated for medical attendance and for medicines shall be used for no other purpose.

II. Each municipality shall have at least one municipal physician. If the population exceeds 10,000 there shall be not less than two municipal physicians, and for every 6,000 or major fraction thereof above this number there shall be an additional municipal physician.

III. When there are more than one municipal physician the territory shall be divided between them as equally as possible, taking into consideration both population and accessibility of territory. Each municipal physician must reside in that part of the municipality which he serves.

IV. Remote and inaccessible barrios must be provided with resident physicians or practicantes. Whenever a barrio is not so provided it shall petition the municipal council, and if without result, then the superior board of health, stating in the petition the population of the barrio, the time required for the nearest physician to reach the central and remote portions of the barrio, and the number of poor who can not pay for medical aid. The board will, if it deems necessary, appoint a physician or practicante, who will be paid from the municipal treasury.

V. Municipal physicians and practicantes will serve under the direction of the alcaldes or comisarios, and must attend all calls made by the sick poor in their respective districts.

VI. Hereafter it shall not be lawful for any municipality, hospital, asylum, school, or other institution in Porto Rico to employ any physician, practicante, dentist, pharmacist, or professional nurse unless said persons are licentiates of the superior board of health of Porto Rico.

VII. Hereafter physicians, practicantes, dentists, pharmacists, and professional nurses shall be appointed to all institutions supported in whole or in part by insular or municipal funds only after competitive examinations. These examinations will be open only to persons who are licentiates of the superior board of health of Porto Rico.

VIII. Hereafter any physician, practicante, dentist, pharmacist, or professional nurse employed in the public service, who has served for a period of five years to the entire satisfaction of the municipality or the authorities of a hospital, asylum, school, or other institution employing such persons, shall not be removed from his office except for immorality or inefficiency.

IX. In cases of immorality or inefficiency charges and specifications will be prepared and the case investigated before a committee of the council, in case he is a municipal employee; or, if he is an employee of the insular government, he will be tried before a committee of the board governing the institution in which he is serving. Appeal in either case may be made to the superior board of health, whose decision will be final.

X. The persons charged with the fulfillment of this order who should fail to comply with the same after having been reminded by the proper authority of said compliance shall be considered guilty of the offense of disobedience and shall be punished in conformity with article 261 of the penal code.

XI. The district courts created by General Orders, No. 140, series of 1899, these headquarters, shall be competent to try the offenses which may be committed in this respect, with the exceptions to be made in accordance with General Orders, No. 88, series of 1899, these headquarters.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 69. } HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, April 2, 1900.*

Upon the recommendation of the judicial board and the superior board of health, the following is published for the information and guidance of all concerned:

I. All cemeteries and all extensions of existing cemeteries hereafter constructed from public funds shall be civil in character.

II. On or before June 30, 1900, each municipality will provide within its limits at least one civil cemetery, which shall be available for the burial of all who die in the municipality. Graves or lots in such cemeteries may be sold for the interment of the remains of individuals or families, but a sufficient area must be set apart for the free and proper burial of the remains of the poor and friendless. All interments in, or disturbance of the soil of, any cemetery now in use, after the above-mentioned date, are hereby prohibited.

Provided, however, That the alcalde of any municipality may submit evidence to show, as respects any cemetery in his municipal district, that there is a space in a designated cemetery available for burials, and that interments may be made in such space without disturbing the remains of human beings previously buried therein. This proof will be forwarded to the military governor, and if, after investigation by the superior board of health, the facts as claimed shall be established, then a special exception will be made by the military governor in the case of the cemetery in question. Applications for special exceptions must be made without delay.

III. It is hereby made the duty of every alcalde to see that the cemeteries within his jurisdiction are maintained in a decent condition; that human bodies are promptly entombed, as required by law and regulations, and that human remains, when exhumed or removed from vaults, are not left exposed to view but are buried or otherwise promptly disposed of, as directed by the superior board of health, which board is authorized to prohibit further interments in any cemetery, if in its judgment the healthfulness of the municipality would thereby be threatened.

IV. Nothing in this order is intended to prevent use for the entombment of the remains of a member of a family in a family vault now existing, or the use of properly constructed and sealed masonry niches, providing that, in the opinion of the superior board of health, such use is not detrimental to the public health.

V. Any municipality may lay out, purchase, hold, and own graveyards or cemeteries within the municipal limits, and will have and exercise police jurisdiction over the same. It may survey, plat, map, fence, ornament, and otherwise improve all public burial and cemetery grounds, and may sell or convey cemetery lots and enact and enforce rules and ordinances for the use, protection, and control of said grounds.

VI. Any church, religious or fraternal organization, or any five or more persons, may associate themselves together to form a cemetery corporation for the purpose of establishing and owning a cemetery, and the burial or cremation of dead bodies. Such organization shall have such powers and privileges, and shall be subject to such duties, liabilities, and restrictions, as the laws of Porto Rico may provide respecting such corporate bodies.

VII. Before any new cemetery is located, or an old one enlarged, a map of the same shall be filed with the superior board of health, and no such location or enlargement shall be entered upon until approval is given by the board.

VIII. No private cemetery shall be established in any municipality except with the approval of a majority of the whole number of the municipal council, as respects the location of said cemeteries.

IX. No cemeteries shall be established within the built-up portions of any city, town, or village, or where any stream of water or spring may thereby be contaminated.

X. For each cemetery a book shall be kept, in which shall be entered the name, sex, color, late residence, occupation, cause of death, and (if a minor) name of parents, of all persons whose remains are buried in the cemetery. On the first day of each month an exact copy of the last monthly additions to this record shall be transmitted to the municipal judge of the district in which the cemetery is located.

XI. Whenever a cemetery is an obstruction to the development of any city or town, it may be declared a nuisance by the superior board of health, and must then be closed and discontinued as a burial place.

XII. It shall not be lawful to open any street, lane, alley, railroad, tramway, trail, or public road through any burial ground or cemetery in Porto Rico.

XIII. All organized cemetery companies may appoint watchmen who, together with superintendents, gardeners, and agents, employed within the cemetery grounds, upon taking an oath of office similar to that required of policemen, shall exercise all the powers of police officers within the cemetery and within 100 meters space outside the boundary of said grounds, in the arrest of persons who are known to have violated the laws for the protection of cemeteries.

XIV. Lots may be sold in any cemetery for burial purposes, or for construction of vaults or tombs, which shall be at the full disposal of the owners, for burial purposes, according to the regulations of each cemetery, so long as the cemetery exists as such. Such lots can be disposed of as other property, but may not be seized for debt; and the cemetery company shall, at all times, grant to the rightful owner free admission to any burial lots, and free privilege to ornament and improve the same in accordance with the by-laws of the cemetery company or the municipality.

XV. In every cemetery there must be provided a suitable building where bodies can be deposited during inclement weather, awaiting burial.

XVI. It is forbidden to mutilate, disinter, or remove from the place of sepulture the remains of any human being without authority of law, or to willfully and maliciously destroy, mutilate, deface, injure, or remove any tomb, monument, gravestone, or other edifice placed in any cemetery or graveyard appropriated to and used for the interment of human bodies in Porto Rico, or to willfully and maliciously injure, destroy, or remove any fence, wall, or other work of protection or ornament, plant, tree, or shrub growing in such cemetery or graveyard.

Any person guilty of the violation of this paragraph shall, upon conviction thereof, be punished by a fine of not less than $50 nor more than $500 United States currency, or imprisonment for not less than sixty days nor more than two years, or by both such fine and imprisonment, as the court may direct.

XVII. The district courts, instituted by General Orders, No. 114, current series, from these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, current series, these headquarters.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 78.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, April 10, 1900.

Upon the recommendation of the superior board of health, the following is published for the information of all concerned:

I. Each municipality shall have at least one competent inspector of cattle and meat, who shall be appointed by the municipal council, after competitive examination, and paid from municipal funds.

II. The municipal inspector of cattle and meat shall inspect every animal offered for human food in the district he serves, and after the animal is accepted and slaughtered he will inspect its flesh and viscera.

III. When sick animals or those suffering from sores or wounds are offered for slaughter for human consumption, the inspector will forbid the slaughter.

IV. Meat which has not been inspected, approved, and duly tagged by the authorized inspector, will not be sold for human food.

V. The flesh of animals suffering from tuberculosis, fever, actinomycosis, glanders, cancer, hydrophobia, eruptive skin diseases, measles and cholera (in hogs), and of those which have died natural deaths, is especially unfit for human food and must be condemned.

VI. No animal over six months pregnant shall be slaughtered for food, and the number of cows shall not exceed one-fourth of the total number of cattle butchered.

VII. Meat will not be condemned unless it is evidently unfit for human food, or is known to be from an animal which was sick at the time of butchering. Condemned meat must be at once destroyed.

VIII. Penalty: Any person guilty of the violation of any of the provisions of this order shall, upon conviction thereof, be punished by a fine of not less than $10 nor more than $200 United States currency, or imprisonment for not less than ten nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court.

IX. The district courts instituted by General Orders, No. 114, current series, from these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, series of 1899, from these headquarters.

By command of Brigadier-General Davis:

WM. E. ALMY,
Acting Adjutant-General.

GENERAL ORDERS, No. 80. } HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, April 12, 1900.*

On the recommendation of the superior board of health, the following is published for the information of all concerned:

NUISANCES.

I. Any object or condition which is prejudicial to public health is designated as a "nuisance." Dead animals in streets or yards, slaughterhouse offal or other decomposing matter, an infected house, overflowing and leaky privies and water-closets, manure-pits, filthy or insecure tenement houses; filthy markets, groceries, dairies, cellars, yards, alleys, or streets; defective drains, filthy stables, foul wells used by the public, open sewers in which the water stands, ponds or pools of stagnant water, are illustrations of nuisances. Soap making, bone boiling, and some other industries may be designated offensive and subject to police control, but they are not necessarily prejudicial to public health.

II. The emptying of material removed from privy vaults and cesspools into, or their connection with, the common sewer is a nuisance, is prejudicial to public health, and is prohibited.

III. The dumping of night soil into any river, stream, lake, or pond in Porto Rico is a nuisance, and is hereby prohibited.

IV. Any person maintaining upon his property a nuisance, must promptly remove or abate the same when notified to do so by the health officer, alcalde, or other proper official.

V. Reports of nuisances should be made in writing, signed by at least three persons, to the alcalde, health officer, or other member of the local or superior board of health. The names of the signers of said report must not be given to the public, except it be so required by a court of justice in due process of law.

VI. It is the duty of the health officer, or in case this officer does not exist, then it is the duty of the alcalde or other proper authority, to receive the reports of nuisances and make efforts to abate them, as the law or the rules and regulations of the local or superior board of health may direct.

VII. Whenever a complaint is made in writing to a board of health, a health officer, or alcalde, of the existence of a nuisance, the matter shall forthwith be investigated by the health officer, alcalde, or other proper authority, and in case he finds that the alleged nuisance is detrimental to the public health, or the cause of any special disease or mortality, he shall notify the owner, agent, or lessee of said premises, or party presumably responsible for said nuisance, in writing, of such finding, and the board, or the alcalde in case no board exists, shall thereupon order and direct the abatement of the same forthwith. In the event of the failure of said owner, agent, or lessee of said property, or said responsible party, to abate the nuisance, then the said officer or board may proceed to abate the same, and may employ all the force necessary to do so, and shall proceed by warrant to arrest and prosecute the party failing to obey said order of abatement. All the expenses attending the abatement of a nuisance shall be charged and shall be a first lien against the property where the nuisance exists.

WATER-CLOSETS, PRIVIES, SINKS, AND CESSPOOLS.

VIII. All privy vaults or cesspools that are full, or when the contents thereof shall be within 2 feet of the surface of the ground, or shall leak into the cisterns, wells, cellars, or basements adjacent thereto, are hereby declared nuisances, prejudicial to health, and the owners, agents, or lessees of the premises to which said privies are appurtenant shall, upon notice, have the contents of said well entirely removed by a licensed cleaner of privies, who shall use such apparatus as is adopted by the superior board of health, and under rules and regulations established by same board.

IX. Hereafter privy vaults must be constructed as follows: Each building situated on an unsewered street must have a vault not less than 4 feet in diameter and 10 feet deep in the clear, lined and floored with a wall of hard brick 9 inches in thickness, laid in cement mortar, and proved to be water-tight.

X. Hereafter privy vaults shall not be situated within 2 feet of the party lines or within 20 feet of a building, when practicable, and before any privy vault shall be constructed application shall be made and a permit issued by the local board of health, or when there is no such board operative, then by the alcalde. The owner of houses must furnish each one with a privy, when water-closets can not be installed.

XI. Hereafter privies must at all times be kept clean and free from bad odors, and the contents protected from flies.

XII. No privies shall exist in any room used as a bakery, public kitchen, milk depot, grocery, market house, or other public place or public room where food is prepared or sold, neither shall any privy open into nor be ventilated into such rooms.

SEWERING.

XIII. Before a new system of sewerage is introduced into any city or town in Porto Rico, a plan of this system, with drawings and specifications, must be submitted to the superior board of health at San Juan. After an examination of the plan, if the board approves, it will so report to the governor, with a recommendation that a permit to construct same be issued. Any change to a new system of sewering, by which the effluent is discharged into a new stream or other body of water, can only be undertaken after the plan has been approved by the superior board of health at San Juan, as above.

XIV. No excavations or digging of soil, drainage of lowlands, grading of streets, opening of public sewers or drains in seacoast cities or towns shall be permitted between the 1st of April and the 15th of November without the approval of the superior board of health; provided, that this is not intended to interfere with the ordinary cultivation of land in farming, the burial of the dead, the digging of wells, when necessary (and there is no water system), the digging of post holes, or the ordinary excavations necessary for building purposes, or necessary repairs to existing systems.

FILLING GROUND WITH OR REMOVAL OF FILTH.

XV. Filling, leveling, or raising the surface of any ground or a lot within any incorporated city or incorporated town or village in Porto Rico with animal or vegetable substances filth gathered in cleaning yards or streets, waste material from mills or factories, or the removal of the surface of any ground or lot within the said cities, towns, or villages filled with such offensive matter or substance, in such a manner as to cause noisome or noxious gases to arise, are hereby declared nuisances, injurious to health.

STREET CLEANING.

XVI. The streets in the cities or towns of Porto Rico must be kept clean. Dirty streets are not only unhealthful, but are very unsightly, and give any city a bad reputation in the eyes of strangers. It is forbidden to throw filth, garbage, dead animals, or solid or liquid waste of any kind into the streets. These must be placed in boxes or other receptacles, which will be emptied by the public scavengers. These receptacles must be kept clean by those who use them. Each owner or agent of property will be held responsible for any violation of these requirements in front of his property, extending so far as the middle of the street.

XVII. Each city council or, under their direction, the local board of health, will make proper regulations for sweeping and cleaning the streets at least three times a week and for the removal of all such sweepings. Sweepings and garbage shall not be deposited in vacant lots or along streams, but at such points as the health officer or local health board shall direct.

XVIII. No dumping ground or refuse of any description shall be maintained in or close to any city, town, or settlement in this island; and it is hereby made the duty of every alcalde to promptly abate such a nuisance, and to prevent the accumulation of refuse and garbage in such quantities as will threaten the health and lives of the people. The garbage should be burned, as far as possible, and this can be done if it is spread out to dry on days when the sun shines.

XIX. Any person guilty of violation of any of the provisions of this order shall, upon conviction thereof, be punished by a fine of not less than $5 nor more than $200, United States currency, or imprisonment for not less than five nor more than ninety days, or by both such fine and imprisonment, at the discretion of the court.

XX. The district courts instituted by General Orders, No. 114, series of 1899, from these headquarters, shall have jurisdiction in cases arising under this order, subject to the provisions of General Orders, No. 88, series of 1899, from these headquarters.

By command of Brigadier-General Davis:

WM. E. ALMY,
Acting Adjutant-General.

CIRCULAR, No. 16.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, April 9, 1900.

Upon the recommendation of the superior board of health the following rules and regulations are published for the information of all concerned:

RULES AND REGULATIONS RESPECTING BURIALS, DISINTERMENTS, AND TRANSPORTATION OF HUMAN BODIES.

I. A human body shall not be buried in any cemetery until the properly signed death certificate, written or printed in ink, is received by the sexton or custodian of the cemetery. Such certificates will be signed and given by the municipal judge or his representative, in conformity with the law of civil registry now in force.

II. The body of every adult must be buried at least 4 feet below the surface of the earth, and bodies of children under 7 years of age must be buried at least 3 feet below the surface.

III. Where vaults or crypts are used, the masonry must be at least 1 foot thick, and the door must be securely sealed after each interment.

IV. In cases of quarantinable diseases, viz, cholera, smallpox, diphtheria, scarlet fever, typhus fever, yellow fever, epidemic cerebro-spinal fever, leprosy, glanders, and oriental or bubonic plague, the coffin must be buried with the body. Those dead of these diseases must be buried in a separate portion of the cemetery, or in vaults or lots owned by the deceased, his family, or friends.

V. Bodies buried in graves shall not be disinterred until five years have elapsed since death.

VI. Human remains shall not be removed from the original place of interment except between January 1 and April 1 of each year. If the removal is to another cemetery, a permit must be obtained from the superior board of health.

VII. All disinterments or transfers must be made during daylight, and superintendents of burial grounds are prohibited from allowing any dead body to be removed from or interred in their grounds between sunset and sunrise. All disinterred remains must be carefully boxed before they are taken from any cemetery; provided, that nothing in this order will be permitted to interfere with the mandate of a court in furtherance of the administration of justice.

VIII. The remains of deceased persons shall not be transferred from or landed at ports of the island without permission from the superior board of health and a certificate from the port sanitary inspector, after an inspection of the casket by the officer named.

IX. Human remains will not be entombed in any church or other building within the walls of San Juan or other city in Porto Rico without the consent of the superior board of health; nor will such remains be transferred from one municipality to another for burial without consent of both alcaldes.

X. It is strictly forbidden to transport outside of any municipality the bodies of persons who shall have died from smallpox, Asiatic cholera, typhus fever, diphtheria, yellow fever, or other quarantinable disease, except by special permission from the superior board of health.

XI. The body of any person who has died of a quarantinable disease shall not be transported, save in a hermetically sealed, metal-lined coffin, after inspection by an agent of or under authority of the superior board of health.

XII. Every dead body in transit must be accompanied by the physician's certificate of death, and a certificate from the shipping undertaker that the body has been properly prepared for transportation according to the foregoing rules.

XIII. Hearses and other conveyances, after use for those dying of contagious diseases, must be thoroughly disinfected, to the satisfaction of the representative of the board of health.

XIV. Any person guilty of the violation of any of the foregoing regulations shall, upon conviction thereof, be punished by a fine of not less than $10 nor more than $500, United States currency, or imprisonment for not less than ten days nor more than two years, or by both such fine and imprisonment, as the court may direct.

XV. The district courts instituted by General Orders, No. 114, series of 1899, these headquarters, shall have jurisdiction in cases arising under these regulations, subject to the provisions of General Orders, No. 88, series of 1899, these headquarters.

By command of Brigadier-General Davis:

WM. E. ALMY,
Acting Adjutant-General.

REGULATIONS PROPOSED BUT NOT PROMULGATED.

The following regulations also adopted by the board were submitted to the military governor with the recommendation that they be promulgated in general orders. They were not so published:

LICENSES AND PERMITS.

Certain dangerous and offensive operations, and some others involving the public health, are commonly regulated by "licenses" and "permits." The former are for a definite period of time, commonly one year, while the latter are for a single operation.

The persons who clean privies in all cities over 10,000 population shall annually receive licenses from the superior board of health at San Juan. They must be provided with modern apparatus and conform to all rules and regulations of the superior board upon pain of fine and revocation of licenses. In towns containing a population of less than 10,000 persons, privy cleaners should be licensed by the local board of health. In cities of first class the cost of the license shall be $25, and in those of second class $10.

The superior board of health of San Juan shall have power to require licenses to be taken out annually by all persons who may engage in occupations which are especially dangerous to human life or are very offensive, as the manufacture of gunpowder, or of nitroglycerin, or soap making and bone boiling. The said board may also formulate the rules and regulations under which dangerous and offensive operations must be carried on.

Permits shall be issued by the superior board of health for the erection or alteration of waterworks, sewerage plants, school buildings, hospitals, dispensaries, asylums, theaters, and all other public buildings.

Local boards of health shall issue permits for building, altering, or cleaning of privies and cesspools, for the burial and removal of dead bodies, for the establishment of milk depots, bakeries, stables, tanneries, soap factories, bone-boiling establishments, and such other institutions as said local boards of health may deem necessary to keep under observation and control.

PUBLIC WATER SUPPLIES.

Every city and town in Porto Rico should have an abundant supply of pure and wholesome water. It has been well said that "Pure water is the first sanitary requisite."

The best supplies are those from springs and running streams along which but few people live. The best waters have no odor, no taste, no color, and are soft. Typhoid fever, cholera, dysentery, and possibly malaria, are very often propagated by drinking water, and whenever these diseases exist boards of health should carefully examine the condition of the water supply for possible sources of contamination.

The health officer, alcalde, or his assistants, should make monthly inspections of the springs or streams, which are sources of municipal water supply, and warn all persons who are defiling the water to desist from same under penalty of the law. No privies, sewers, slaughterhouses, tanneries, mills, factories, stables, or other like foci

of contamination should be permitted to discharge their contents into any stream used for domestic supplies, and if any such contamination is discovered it should be ordered discontinued at once.

The selection of new water supply or the enlargement of an old plant can only be made after the local authorities shall have obtained the consent of the superior board of health at San Juan. Applications for such authority should be made to the secretary of the superior board of health at San Juan, P. R.

It is prohibited to throw into any stream in Porto Rico any waste from tanneries or other manufacturing establishment, whereby the water is discolored, made offensive or poisonous and unfit for the use of men and domestic animals. The throwing of all acids and chemical salts into streams is prohibited.

Municipalities should place hydrants on the streets, where they will be readily accessible to the poor, as an abundance of good water is conducive to good health. Bathing facilities should be furnished to the poor where it is possible.

PUBLIC INSTITUTIONS.

All school buildings, both public and private, asylums, hospitals, jails, court rooms, barracks, theaters, and other public buildings in which the people congregate, are subject to sanitary rules and regulations, and should be inspected by boards of health at frequent intervals.

All plans for new public buildings or alterations in old buildings must be submitted to the superior board of health at San Juan.

All public buildings are required at all times to be well lighted, well ventilated, scrupulously clean, free from vermin, and with floors which can be readily cleaned. There must be ready means of escape in case of fire.

Privies and water-closets must be kept clean and free from bad odors. All the drains must be kept free and in good order. All sewer and waste pipes must be securely trapped and properly ventilated.

Baths must be provided for asylums, boarding schools, barracks, jails, and hospitals, so that all the inmates can bathe at least once a week. Their underclothing must be washed at least once a week. Medical officers or other authorities must be held responsible for the sanitary condition of inmates in public institutions.

The food must be good and wholesome and of sufficient quantity and variety. Frequent inspections must be made of the food and of the kitchen where it is prepared, to see that both are clean and wholesome. No privy can be permitted in any kitchen of a public institution. The gardens, yards, and all the surroundings must be kept free from filth and litter.

SCHOOL HYGIENE.

Schoolhouses should be located where there is a free circulation of air and sufficient light. The rooms should be sufficiently large, well lighted, well ventilated, and there should be a supply of good drinking water convenient.

Pupils should not be required to sit facing the light, and blackboards should not be placed between windows. Windows should not be obstructed with curtains, flowers, or other objects. Desks should be

adapted to size of children. The privy should be kept clean and in good condition. Drains must be kept open.

Plans for new schoolhouses or for alterations in old ones must be submitted to the superior board of health at San Juan and a permit obtained before the work is begun.

TENEMENT HOUSES.

Houses which are occupied in common by three or more families are designated by this term. The owner is held responsible for their good sanitary condition.

Privies must be kept free from bad odors and, if full, must be emptied by a licensed cleaner, a permit having been first obtained from the local board of health by the owner. Drains must be kept clean and in good order. Plumbing must be done by a licensed plumber and under the regulations of the superior board of health. There should be a good water supply, and in case water can be obtained from a public service connection therewith must be made and running water furnished each floor. Tenements should not be unduly crowded. No room should be occupied by more than two adults and one child, and each occupant should have not less than 35 square feet of floor space and 350 cubic feet of air space.

A license must be obtained from the superior board of health at San Juan for the erection of new tenements or the alteration of old ones.

Whenever a building or part thereof is overcrowded, or is not provided with adequate means of ingress and egress, or is not sufficiently supported, ventilated, sewered, drained, cleaned, or lighted, it is declared to be a nuisance, prejudicial to the public health, and every person having aided in creating or contributing to the same, or who may support, continue, or retain any of them, shall be deemed guilty of a violation of this regulation and shall be liable to a penalty of not more than $100 or imprisonment for sixty days.

All apartments in tenement houses must be cleaned and disinfected before any new tenant is admitted to any apartment or apartments.

BOARDING AND LODGING HOUSES.

HOTELS.

The means of light, ventilation, and egress must be satisfactory to the local board of health.

There shall be allowed no less than 350 cubic feet of space to each lodger in sleeping rooms.

Water-closets will be provided on each floor, at least 1 to every 15 lodgers.

HOUSE TO HOUSE INSPECTION.

A house to house inspection of all cities and towns shall be made when deemed necessary and directed by the superior board of health. A record shall be made on suitable blank forms provided for the purpose, setting forth the number of inmates in the house, of each sex and color, whether any sickness exists in the house at the date of inspection or has existed in the past six months, nature of the sickness, sanitary condition of the house, water-closets, cesspools, sinks, or privy vaults.

SLAUGHTERHOUSES.

All slaughterhouses located within or close to any city in Porto Rico shall have the floors of asphalt or some other impervious material, properly sloped to a well-trapped and permanently graded inlet having a direct communication with a sewer or other open outlet.

The walls shall be covered to the height of 7 feet with some impervious material.

The yards connected with the slaughterhouse should be graded, paved, and sloped, so that they may be flushed with water and kept perfectly clean. There should be an abundant water supply, with hose so arranged that the walls, floors, and yards may be effectively washed.

The floors of the apartments in which the animals are kept previous to slaughtering should likewise be paved or covered with asphalt or cement.

The house should be capable of complete ventilation by openings in the roof and elsewhere. No blood pit, offal pit, or privy well shall be permitted within any slaughterhouse.

All slaughterhouses in or near cities not provided as above should be considered by health boards as nuisances.

The owners, agents, or occupants of all slaughterhouses within or near the cities of Porto Rico are required to provide movable receptacles, with tightly fitting covers, for the purpose of receiving and conveying away blood, offal, filth, and other offensive matter, and these matters are to be deposited in the receptacles immediately after the slaughtering and removed with all the fat, hides, tripe, and bones daily.

No blood or any offal shall be permitted to flow into any sewer. Anyone violating these regulations should be prosecuted for maintaining a public nuisance.

It is recommended that the dealers in meat in each city unite in establishing a refrigerating plant where their products may remain indefinitely without loss until sold.

Those who kill animals for their flesh are strictly enjoined not to kill for human food any animal suffering from any external disease, as cancer or abscesses, nor any animal sick with fever from disease or wounds, and should any animal be killed and its internal organs found to be diseased the meat shall not be offered for sale unless special permit is received from the health officer.

The flesh of animals which have died from natural causes shall not be prepared for human consumption or offered for sale. The flesh of pregnant animals not suffering from any disease is declared to be wholesome for human beings.

TRADES AND WORKSHOPS.

Owners of slaughterhouses, tanneries, soap-making and bone-boiling establishments, barbers, cigarmakers, and all others who from the peculiar nature of their trades or business are liable to spread disease, should be very careful to keep their places of business clean, wholesome, and above all suspicion as disease breeders. Butchers, barbers, cigarmakers, bakers, proprietors of laundries, and tailors should not employ persons suffering from contagious diseases. Clothing should not be sent to houses to be made where it is known that diphtheria

scarlet fever, smallpox, yellow fever, cholera, leprosy, or any other dangerous contagious or infectious disease exists.

Workshops should be well lighted, well ventilated, dry, and each one must have a privy accessible and in good condition, but this should not be inside the shop.

SEWERAGE.

Upon the recommendations of the superior board of health owners of buildings abutting on streets provided with public sewers in any city in Porto Rico having waterworks are hereby required to furnish their buildings with water-closets of pattern approved by the superior board of health and to connect said water-closets and also all kitchen sinks with said sewers on or before December 31, 1900. Said connection to be made in accordance with regulations prescribed by the superior board of health.

First. On and after the 31st day of December of the year 1900 no urinal or water-closet or sink or bathroom in any building situated as aforesaid shall be unconnected with such sewer, and in case of failure to comply therewith the owner of such building or, in his absence from the island, the agent of such owner having control of such building shall be deemed guilty of a misdemeanor and shall, by order of the alcalde of the city wherein the building is located, be fined not less than $75 and not more than $200, and in case such fine is not paid within ten days from the date on which the order is issued the tenant shall be ordered and authorized to withhold from him the house rent and to pay said rent into the treasury of the superior board of health and continue to do so until the amount of the fine has been fully paid.

Second. In case any building situated as aforesaid be not provided with the sewer connection and with the water closet or closets required by paragraphs 1 and 3 of this order ten days after the full payment of the fine mentioned in the above paragraph, the board of health is hereby vested with the right to enter such premises, and shall proceed at once to employ competent and necessary plumbers and other workmen, and shall purchase the necessary material, and shall cause such water closet or closets to be placed in such building in such locality as the board of health shall determine, and such connections to be made with the most convenient sewer, at the owner's expense. The secretary of said board of health shall keep a separate account of the cost and expense properly chargeable to each building. Upon the completion of such work said account shall be presented to the owner of such building, if he is on the island, and if absent from the island, then to his agent having control of the building, with a demand for payment within three days.

Third. In case the account referred to in preceding paragraph shall remain unpaid at the expiration of such period of three days it shall be the duty of the secretary of the board of health to at once transmit to the alcalde of the city a certified copy of such account, verified by the oath of the engineers of said board, and the same when so verified shall be taken and deemed to be prima facie evidence that the charges therein are reasonable and just and that the work was properly performed and the material duly furnished. A surcharge of 6 per cent of the total amount shall be made to cover incidental expenses in each case. The alcalde of the city will notify the interested party within

twenty-four hours of the receipt of said account and shall order the payment of the same within three days, the necessary orders and instructions having been given by him.

Fourth. Upon the expiration of the period of three days mentioned in paragraph 3 of this order, the board of health shall at once make out a list of those owners who have failed to pay their accounts, and will present said accounts to the alcalde of the city, who shall, within the specified time of twenty-four hours following, order and declare the first lien on the furniture and other movable articles, the property of the house owner, authorizing the proper and competent authority to enter the dwellings of such owners for its execution.

Fifth. The collector of the board of health shall enter the premises accompanied by a policeman and an appraiser, and will at once make an inventory of the articles of furniture to be sold at public auction.

Sixth. If within twenty-four hours after the lien as prescribed by paragraph 4 of this order shall have been declared, the owner or agent of such building, having been duly notified by the proper authority, does not present a receipt showing that the account and extra charge for incidental expenses have been fully paid, the articles of furniture will be advertised to be sold at public auction in the Official Gazette for five consecutive days. The date and place where the articles are to be sold at auction will be indicated in the advertisement.

Seventh. If the amount of the articles as inventoried does not cover the total amount of the account, said account and inventory will be forwarded to the alcalde of the city, with a request that a first lien be granted on such building so situated as aforesaid wherein such work shall have been done by said board of health for the use of the department of sewers, which lien shall be superior in dignity to all liens of a private nature of every kind and character whatsoever, and such liens shall be discharged by payment only.

Eighth. The alcalde of the city is hereby authorized to collect and enforce, as herein prescribed, all claims presented to him by said board of health.

Ninth. On and after March 31, 1900, no newly built dwelling house, situated as described in the opening paragraph of this order, nor any place of business shall be rented or occupied as such, unless provided with the required sanitary conveniences above specified; and should the house owner fail to comply with this paragraph, he shall be fined not less than $20 and not more than $50; and if within five days after the date on which the fine is imposed the owner shall fail to comply with this paragraph, he shall be fined $2 for each and every day thereafter that the dwelling is not provided as above specified.

Tenth. All fines paid in pursuance of this order shall be for the benefit of the board of health of the city where paid, and shall be taken up and accounted for as other public funds.

PLUMBING.

Every person engaged in the plumbing business in Porto Rico as a master plumber, and every person coming from other places for the purpose of doing plumbing work in Porto Rico as a master plumber, shall appear in person at the office of the superior board of health and receive a certificate of registry upon presenting satisfactory proof that he is a bona fide master plumber; and no person other than a licensed

and registered plumber shall be allowed to carry on or engage in the plumbing business, or make any connection with any water pipe, sewer, soil or waste pipe, or any pipe connected therewith.

Every registered plumber shall give immediate notice of any change in his place of business, and upon his retirement from business shall surrender his certificate of registry to the superior board of health.

The plumbing of all buildings, public or private, and the alterations of the same shall be executed in accordance with the plans and specifications previously approved in writing by the superior board of health. There shall be a separate plan for each building, public or private, accompanied by specifications describing the drainage of said buildings on blanks prescribed and furnished for this purpose, showing the size and kind of pipes and traps, closets and fixtures, etc., to be used, the same to be placed on file in the office of the superior board of health. Said drawings and descriptions to be furnished by the owner or his authorized agent, and prepared by the architect or builder, where one is employed; and application for change of plan must be made in writing by the owner.

Drawings and descriptions of the plumbing of buildings already erected may be placed on file in the office of the superior board of health. Blanks for drawings and specifications for plumbing will be furnished on application at the office of the superior board of health. One vertical drawing will be sufficient for a building where it can be made to show all the work; if the work is intricate and can not be shown by one drawing, two or more shall be made.

When the drainage of buildings has been inspected and condemned, plans must be filed with the superior board of health, and the new work for alterations shall be executed in accordance with these rules and regulations.

Plans will be approved or rejected speedily, and under no circumstances will a delay beyond ten days be permitted.

All material shall be of good quality and free from defects, and the work must be executed in a thorough and workmanlike manner.

The main sewer of every house or building shall be separately and independently connected with the street sewer, where one is provided; and where there is no sewer in the street, and it is necessary to construct a private sewer to connect with the one on an adjacent street, such plans may be used as may be approved by the superior board of health, but in no case shall a joint sewer be laid in cellars parallel with street or alley.

All house sewers laid beneath the ground inside of buildings or beneath the cellar floor shall be of plain extra heavy cast-iron pipe, with well-leaded and calked joints, or of wrought iron, with screw joints made with a paste of red lead and treated to prevent corrosion.

Outside of buildings, where the soil is of sufficient solidity for a proper foundation, cylindrical terra-cotta pipes of the best quality, free from flaws, splits, or cracks, perfectly burned and well glazed over the inner and outer surfaces, may be used, laid on a smooth bottom, with a special groove cut in the bottom of trench for each hub (in order to give the pipe a solid bearing on its entire length), and the soil well rammed on each side of the pipe. The spigot and hub ends shall be concentric.

The space between the hub and pipe shall be thoroughly filled with the best cement mortar, made of equal parts of any approved cement

and bar sand, thoroughly mixed dry, and water enough afterwards added to give a proper consistence. The cement must be mixed in small quantities at a time and used as soon as made. The joints must be carefully wiped and pointed, and all mortar that may be left inside thoroughly cleaned out and the pipe left clean and smooth throughout, for which purpose a swab will be used.

No tempered-up cement will be used. A straight edge shall be used, and the different sections will be laid in perfect lines on the bottom and sides, but in no case shall terra-cotta pipes be permitted within 5 feet of any foundation wall or for extension to connect with rain-water conductors, surface or air inlets.

NOTE.—After the test has been approved by the inspector iron drain or soil pipes may be tar coated; but in no case shall any coating be applied to cast-iron soil or drain pipes until test has been applied and approved by the inspector.

The house sewer shall not be less than 4 inches nor more than 10 inches in diameter, and the fall shall not be less than one-half an inch to the foot, unless by special permission of the superior board of health. It shall be laid in a trench cut at a uniform grade, or it may be constructed along the foundation walls above the cellar floor, resting on 9-inch brick piers laid in cement mortar (said piers not to be more than 7 feet apart) and securely fastened to said walls. No test shall be made by the inspector until said pipes are secured as above described.

The arrangement of sewer, soil, and waste pipes shall be as direct as possible. All changes in direction on horizontal pipes shall be made with Y-branches, one-sixteenth or one-eighth bends.

The house drains shall be provided with a horizontal trap placed within the building wall nearest to the sewer, or at the curb. The trap shall have a hand hole, for convenience in cleaning, the cover of which shall be properly fitted and the joints made air-tight.

NOTE.—If the trap on the sewer is placed inside of the cellar wall there shall be no clean out between the water seal of the trap and the sewer.

There shall be an inlet for fresh air entering the sewer just inside the water seal of the main trap, and also of the rear end of the system, when the vertical line of soil pipe is located in the central part of the building and the main fresh-air inlet is deemed insufficient to ventilate the entire system. Said inlets shall be at least 4 inches in diameter, leading to the outer air and opening at any convenient place, with an accessible clean out. Where air inlets are located off the footway, on grass plats, lawns, etc., they shall extend not less than 6 nor more than 15 inches above the surface of the ground, and be protected by a cowl securely fastened with bolts.

Where the sewer passes through a new foundation wall a relieving arch shall be built over it with a 2-inch clearance on either side.

Every vertical soil pipe shall extend at least 2 feet above the highest part of the building or contiguous property, and shall be of undiminished size, with the outlet uncovered except with a wire guard. Such soil pipe shall not open near a window nor an air shaft.

Every branch or horizontal line of soil pipe to which a group of two or more water-closets are to be connected, and every branch of line of horizontal soil pipe 8 feet or more in length, shall be ventilated, either by extending said soil pipe, undiminished in size to at least 2 feet above the highest part of the building or contiguous property, or by extend-

ing said soil pipe or connecting it with the main soil pipe above the highest fixture, or by a ventilating pipe connected to the crown of each water-closet trap, not less than 2 inches in diameter, which shall be increased one-half an inch in diameter for every 15 feet in length, and connected to a special air pipe, which shall not be less than 4 inches in diameter, or by connecting said ventilating pipe with the main pipe above the highest fixture.

When a separate line of waste pipe is used, not connected with sewer pipes, it shall also be carried 2 feet above the highest part of the building or contiguous property unless otherwise permitted by the superior board of health. But in no case shall a waste pipe connect with a rain-water conductor.

There shall be no traps, caps, or cowls on soil and waste pipes which will interfere with the system of ventilation.

All sewer, soil, waste, antisiphon pipes, and traps inside of new buildings, and of the new work in old buildings, and also of the entire system when alterations are made in old buildings, and the owner or agent of said building or buildings shall have contracted to have the entire drainage system tested, shall have openings stopped, and a test of not less than 3 pounds atmospheric pressure to the square inch applied.

All sewer, soil, and waste pipes and traps shall, if practicable, be exposed to view for ready inspection at all times and for convenience in repairing. When placed within walls or partitions and not exposed to view, or not covered with woodwork fastened with screws so as to be readily removed, or when not easily accessible, extra heavy pipes shall be used, at the discretion of the superior board of health.

No plumbing work shall be covered or concealed in any way until after it has been examined and approved by the house-drainage inspector, and notice must be sent to the superior board of health, in writing, when the work is sufficiently advanced for such inspection, and immediately upon the completion of the work application must be made for final inspection. The failure on the part of a master plumber to make such application for final inspection or the violation of any of the rules of the board of health in the construction of any drainage work, and failure to correct the fault after notification, will be deemed sufficient cause to place his name on the delinquent list until he has complied with said rules and regulations. Any attempt on the part of a master plumber to construct or alter a system of sewerage during the time his name appears upon said delinquent list will subject him to criminal prosecution.

All sewer and antisiphon pipes of cast iron shall be sound, free from holes, and of a uniform thickness, and shall conform to the following relative weights:

	Pounds per foot.
2-inch pipe	4
3-inch pipe	6
4-inch pipe	9
5-inch pipe	12
6-inch pipe	15
7-inch pipe	20
8-inch pipe	25
10-inch pipe	35
12-inch pipe	45

	Pounds per foot.
2-inch pipe	5½
3-inch pipe	9½
4-inch pipe	13
5-inch pipe	17
6-inch pipe	20
7-inch pipe	27
8-inch pipe	33½
10-inch pipe	45
12-inch pipe	54

All sewer and antisiphon cast-iron pipes shall have the weight per foot and the name of the manufacturer cast on the exterior surface directly back of the hub of each section in characters not less than one-half inch in length.

Lead waste pipes may be used for horizontal lines that are 2 inches or less in diameter, and shall have not less than the following prescribed weights:

	Lbs.	oz.
1-inch pipe	2	0
1¼-inch pipe	2	8
1½-inch pipe	3	8
2-inch pipe	4	0

Lead bands or traps for water-closets shall not be less than one-eighth of an inch in thickness.

Waste pipes from wash basins, sinks, and bath tubs shall be not less than 1¼ inches in diameter, and wash-tray waste pipes not less than 1½ inches in diameter.

All joints in cast-iron drain, soil, and waste pipes shall be so calked with oakum and lead, or with cement made of iron filings and sal ammoniac, as to make them gas-tight.

All connections of lead with iron shall be made with a brass ferrule not less than one-eighth of an inch in thickness, put in the hub of the iron pipe and calked with lead, except in cases of iron water-closet traps or old work when drilling or tapping is permitted. The lead pipe shall be attached to the ferrule by a wiped solder joint.

All connections of lead pipe shall be by wiped solder joints.

Every water-closet, sink, basin, wash-tray, bath, and every tub or set of tubs, shall be separately and effectually trapped, and the style of trap must be approved by the superior board of health.

Each trap must be placed as near the fixture as practicable. All waste pipes shall be provided with strong metallic strainers. All drains from hydrants shall be trapped, and in a manner accessible for cleaning out.

Traps of fixtures shall be protected from siphonage. All anti-siphon pipes shall be carried up and through the roof or connected with the main soil pipe above the highest fixture.

Every anti-siphon pipe shall be of lead, of galvanized gas pipe, or of plain cast-iron pipe. Where these pipes go through the roof, they shall extend 2 feet above the highest part of the building or contiguous property. They may be combined together with those which serve several traps. These pipes, where not vertical, must always have a continuous slope to avoid collecting water by condensation.

All drip or overflow pipes from safes under wash basins, baths, urinals, water-closets, or other fixtures, shall be by a special pipe run to an open sink outside the house, or some conspicuous point, and in no case shall any such pipe be connected with a soil, sewer, or waste pipe.

No waste sewer pipe from a refrigerator or other receptacle in which provisions are stored shall be connected with any sewer, soil, or other waste pipe. Such waste pipes shall be so arranged as to admit of frequent flushing, and shall be as short as possible.

All water-closets within buildings shall be supplied with water from special tanks or cisterns which shall hold not less than 8 gallons of water when up to the level of the overflow pipe for each closet supplied, excepting automatic or siphon tanks, which shall hold not less than 5 gallons of water for each closet supplied. The water in said

tanks shall not be used for any other purpose. The flushing pipes of all tanks shall not be less than 1¼ inches in diameter.

A group of closets may be supplied from one tank, but water-closets on different floors shall not be flushed from one tank.

The inclosure of the yard water-closet shall be ventilated by slatted openings.

Water-closets must not be located in the sleeping apartments of any building, nor in any room or apartment which has not direct communication with the external air, either by a window or by an air shaft; having an area to the open air of at least 4 square feet, and such areas must remain open at all times.

The containers of all water-closets within a building using lead connections shall have a cast brass flange, not less than three-sixteenths of an inch in thickness (fitted with a pure rubber gasket of sufficient thickness to insure a tight joint), bolted to the closet.

Where latrines are used for schools, they shall be porcelain lined or of iron, properly supplied with water, and located in the yard at least 20 feet from the building, when practicable.

Rain-water conductors, where the water is not stored, shall be connected with the house drain or sewer and be provided with a trap the seal of which shall not be less than 5 inches. Said trap shall have a hand-hole for convenience in cleaning, the cover of which shall be made air-tight.

Rain conductors shall not be connected outside of the main trap, nor used as soil, waste, or vent pipes; nor shall any soil, waste, or air pipe be used as a rain conductor, and if placed within a building shall be of cast-iron pipe with leaded joints.

No steam exhaust or waste from steam pipes shall be connected with any house sewer or soil pipe.

No privy vault or cesspool for sewage shall hereafter be constructed in any part of San Juan, Ponce, or Mayaguez where a sewer is at all accessible.

No connection from any cesspool or privy vault shall be made with any sewer, nor shall any water-closet or house drainage empty into a cesspool or privy vault.

In rural districts waste pipes from buildings may be connected with cesspools constructed for that special purpose, properly flagged or arched over, and not water-tight, by special permission of the local board of health.

No opening shall be permitted in the sewer pipe of any building for the purpose of draining a cellar, unless by special permission by the board of health.

Cellar drains shall be constructed as follows: By a system of field tile, to a catch basin, flagged over, the outlet pipe shall be properly trapped and connected with the house drain, and shall also be provided with a back-pressure valve or stopcock the required size.

DISSECTION.

The dissection of human bodies and the performance of autopsies upon the same, in the interest of medical and surgical science, is legal in Porto Rico. All such dissections shall be carried on under rules and regulations to be prescribed by the superior board of health.

COLLECTION OF VITAL STATISTICS.

About the year 1885 the Spanish Government established in each municipality a civil registry office, in charge of a municipal judge. In this office record was made of all deaths, births, and marriages.

The following methods were adopted at that time and are still in force: Before the burial of a body was permitted in a cemetery, a certificate of registry was required from the municipal judge. This was given only after a physician's certificate of death was presented at the office of the civil register, together with a signed declaration by a relative of the deceased, giving the writer's name, age, civil state, and degree of relationship, also the name, age, occupation, residence, and civil state of the deceased, and date of death.

A large proportion of deaths occur without medical attendance. In these cases certificates are obtained from the municipal physician, who diagnoses the case after securing a history from the relatives. If there should be cause for suspicion, the certificate is refused, and an autopsy ordered by the judge. Under these circumstances accuracy as to the number of deaths was obtained, but accuracy as to diagnosis was impossible.

The peons travel miles, carrying their dead, to secure the required certificate from the titular physician, who may learn that the deceased was suffering from diarrhea, and possibly some abdominal pains. Nothing further is obtainable, and "dysentery" is the verdict. Or the history is even more indefinite; possibly no symptoms were apparent to the ignorant friends present, and so "anemia" shoulders the blame.

The facts in each case are duly entered in the office records, and statistics as to the number of deaths since 1885 are fairly reliable.

BIRTHS.[1]

The laws governing the registration of births, if enforced, would insure correct returns. They require an immediate report of a birth from the physician or midwife in attendance thereon. Also a declaration by the parent at the office of the municipal judge within fifteen days after birth, giving name, age, residence, and occupation of parents and grandparents. The time for making the returns was later extended to forty days. A certificate of such registry was issued, the presentation of which to the priest was necessary before baptism could be performed. But the law was not enforced. Physicians and midwives, relying on the parents to make the returns, failed to report the cases; baptism was performed without the judge's certificate, and the parents delayed registering the birth until such time as convenient or certain legal questions necessitated it. This registration was frequently postponed several years, and consequently birth returns are not reliable.

MARRIAGES.

Marriages were always religious, but to give them a legal status it was necessary to fill out a certificate of intention, to be filed with the civil registry, and also, subsequent to the ceremony, a declaration of

[1] Still births are recorded in a book especially kept for that purpose.

its having been performed. The civil process, as well as the religious services, was often deferred and frequently entirely omitted, and statistics of marriages are consequently not entirely to be relied upon.

The law of civil registry required that a numerical report of deaths, births, and marriages should be sent direct to the governor-general every fifteen days. These were to be referred to the bureau of statistics. An annual report was also forwarded by the municipal registrars to the "juez de first instancia del partido," giving name, age, sex, civil state, and any other data bearing on the cases.

Whether these reports were regularly made or not is uncertain. It is, however, certain that they were never published. It is presumed that they were placed on file, but if so, they were either destroyed upon the arrival of our forces or shipped to Spain, probably the former.

Such of the following statistics as refer to former years were gathered by communicating with the several municipal judges in charge of the registry offices.

STATISTICS.

During the year ending December 31, 1899, there were reported 39,918 deaths from all causes, making a death rate of 41 per thousand.

Compared with the two preceding years, in 1897 the rate was 34, and in 1898 the rate was 35, per thousand.

The number of deaths reported in 1899 was greater by 6,568 than in 1898, and by 9,362 than in 1897.

There was 1 death to 24 of the population against 1 to 27.4 in 1898, and 1 to 29 in 1897.

The following table presents the number of deaths during each of the past ten years, with the rate per thousand.

As noted above, the aggregation of statistics for the past years was not to be found. It was obviously not practicable to secure details as to all the causes of death by communicating with every municipality, and consequently it is not possible to divide the deaths in the following table as to age and class of disease.

However, this course was pursued to obtain information in cases of particular interest, as for records of the important diseases tabulated below.

	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.
Deaths	26,947	23,989	24,474	21,616	24,892	26,284	25,435	31,980	33,614	39,918
Rate per thousand.	32	28	27.6	25.7	28.5	29	27.7	34	35	41

The island was divided under Spanish dominion into 70 municipal districts. Since the American occupation 5 of these have been consolidated with 4 contiguous districts, namely: Piedras with Humacao, Hormigueros with Mayaguez, Barceloneta with Manati, and Luquillo and Cieba with Fajardo.

The population of the districts varies all the way from 4,000 to 50,000. A census was taken in 1887, 1897, and 1899. The population for the intermediate years has been estimated.

The prevalence of certain important diseases in the several municipal districts for each of the past ten years is exhibited in the following tabulated statements:

ADJUNTAS.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	2	.....	2	1	8	.....	18	1	148
1891	1	.....	2	1	3	.....	.....	7	101
1892	.....	1	5	.....	13	.....	19	7	185
1893	.....	1	2	.....	4	.....	12	1	130
1894	.....	.....	1	1	40	1	19	2	151
1895	.....	.....	3	4	16	.....	14	5	129
1896	.....	.....	1	5	22	.....	20	7	147
1897	.....	1	3	2	7	3	21	8	161
1898	6	.....	7	5	9	.....	12	5	312
1899	4	.....	1	16	233	.....	17	9	470

AIBONITO.

1890	.....	.....	.....	.....	.....	.....	.....	14	49
1891	.....	.....	.....	.....	.....	.....	8	11	58
1892	.....	.....	.....	2	1	.....	2	6	45
1893	.....	.....	.....	.....	.....	.....	4	7	54
1894	.....	1	3	1	.....	.....	1	14	74
1895	.....	.....	8	.....	1	.....	.....	15	73
1896	.....	.....	1	.....	4	.....	.....	12	66
1897	.....	.....	1	1	129	.....	1	10	103
1898	.....	1	3	.....	14	.....	2	7	125
1899	.....	.....	.....	1	24	.....	.....	7	148

AGUADA.
[Report incomplete.]

1890	12	.....	.....	.....	.....	.....	.....	.....	.....
1891	8	.....	.....	.....	.....	.....	.....	.....	.....
1892	7	.....	.....	.....	.....	.....	.....	.....	.....
1893	10	.....	.....	.....	18	.....	3	.....	62
1894	9	.....	.....	.....	.....	.....	.....	.....	.....
1895	6	.....	.....	.....	.....	.....	.....	.....	.....
1896	9	.....	.....	.....	.....	.....	.....	.....	.....
1897	5	.....	.....	.....	.....	.....	.....	.....	.....
1898	6	.....	.....	1	.....	.....	.....	.....	.....
1899	3	.....	.....	.....	.....	.....	.....	.....	.....

AGUADILLA.

1890	16	.....	5	7	1	.....	82	8	31
1891	1	.....	1	11	.....	5	64	14	42
1892	.....	2	15	7	.....	1	59	10	25
1893	.....	2	2	2	.....	3	65	5	26
1894	.....	.....	2	2	.....	1	80	4	28
1895	.....	.....	1	6	.....	.....	77	4	34
1896	73	12	1	5	2	1	64	5	26
1897	1	.....	6	6	7	.....	63	10	37
1898	.....	.....	4	14	3	5	78	29	78
1899	.....	.....	2	14	31	2	62	37	125

AGUAS BUENAS.

1890	5	.....	9	2	3	.....	12	6	56
1891	3	.....	8	1	2	.....	9	4	75
1892	.....	1	8	.....	9	.....	8	14	43
1893	.....	.....	6	3	10	.....	12	11	31
1894	.....	.....	11	5	3	.....	12	10	45
1895	5	.....	10	6	.....	.....	14	.....	33
1896	.....	.....	18	6	23	.....	20	8	53
1897	.....	.....	25	9	16	.....	15	3	45
1898	.....	.....	16	.....	10	.....	16	5	95
1899	.....	.....	10	2	.....	.....	8	8	115

ANASCO.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	91	.....	1	.....	1	.....	3	44	2
1891	.....	1	8	3	2	.....	11	30	4
1892	.....	.....	4	1	3	.....	8	33	8
1893	.....	.....	3	1	4	.....	3	30	5
1894	.....	.....	3	2	7	.....	17	33	2
1895	.....	1	6	8	6	.....	31	27	10
1896	144	1	2	4	7	.....	25	41	7
1897	30	.....	1	7	43	1	15	15	3
1898	23	.....	3	1	90	.....	3	18	23
1899	.....	.....	1	1	33	.....	.....	34	6

ARECIBO.

1890	151	.....	.....	3	22	.....	.....	89	147
1891	6	.....	.....	.....	21	.....	6	82	119
1892	.....	7	.....	1	12	.....	5	115	107
1893	.....	2	.....	6	62	.....	4	98	103
1894	.....	1	.....	8	37	.....	11	98	109
1895	4	1	.....	10	3	.....	18	83	89
1896	9	.....	.....	1	47	.....	15	97	149
1897	.....	.....	.....	1	57	.....	7	99	190
1898	1	.....	5	7	118	5	18	104	344
1899	.....	.....	.....	7	146	.....	73	131	429

ARROYO.

1890	25	.....	5	.....	2	.....	13	.....	9
1891	76	.....	6	.....	1	.....	14	.....	5
1892	.....	.....	4	.....	1	.....	10	.....	11
1893	.....	.....	5	3	.....	.....	15	.....	9
1894	.....	1	1	3	.....	.....	16	.....	4
1895	.....	.....	4	5	1	.....	21	.....	9
1896	.....	.....	1	1	2	.....	11	.....	4
1897	.....	.....	.....	.....	7	.....	5	2	18
1898	.....	.....	2	.....	10	.....	17	1	8
1899	.....	.....	3	.....	14	.....	19	5	13

BARRANQUITAS.

1890	.....	.....	9	3	.....	.....	6	4	26
1891	.....	.....	1	1	1	.....	9	5	22
1892	.....	.....	2	.....	5	.....	9	14	18
1893	.....	1	2	.....	.....	.....	5	14	33
1894	.....	1	.....	.....	1	.....	4	3	26
1895	.....	.....	4	.....	.....	.....	7	1	38
1896	.....	.....	8	2	.....	.....	9	3	48
1897	.....	.....	6	2	42	.....	4	4	86
1898	.....	.....	14	.....	9	.....	5	9	104
1899	.....	.....	10	22	128	1	1	4	128

BARROS.

1890	.....	10	12	6	30	3	19	20	32
1891	.....	2	20	8	15	.....	20	15	26
1892	7	3	21	6	11	.....	8	20	26
1893	.....	.....	6	6	15	.....	12	10	18
1894	.....	.....	8	3	16	.....	8	26	20
1895	.....	1	3	8	16	.....	10	28	39
1896	.....	1	10	7	20	.....	11	27	38
1897	8	2	13	3	29	3	8	16	39
1898	31	10	12	2	18	.....	6	28	46
1899	.....	.....	6	1	129	4	9	29	331

BARCELONETA.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	35	.....	.....	2	4	.....	6	3	62
1891	6	.....	.....	.....	2	.....	1	6	41
1892	.....	.....	3	.....	10	.....	14	21	82
1893	1	1	1	.....	1	.....	15	21	70
1894	.....	.....	.....	1	2	.....	14	18	76
1895	8	.....	3	.....	9	.....	14	12	108
1896	23	.....	4	1	5	2	10	7	103
1897	.....	.....	.....	.....	1	.....	8	19	133
1898	.....	.....	.....	2	2	.....	8	36	255
1899	.....	.....	.....	.....	3	.....	10	13	346

BAYAMON.

1890	3	.....	9	2	5	6	38	30	98
1891	1	.....	8	6	2	2	47	18	102
1892	.....	7	7	3	6	3	42	33	85
1893	.....	.....	1	1	5	2	52	30	76
1894	90	1	1	4	12	5	65	24	60
1895	189	1	1	13	1	7	55	29	24
1896	.....	1	.....	15	11	1	52	21	51
1897	.....	.....	3	23	160	1	70	23	90
1898	.....	1	2	15	66	2	75	18	68
1899	.....	.....	3	13	54	2	66	33	115

CAROLINA.

1890	.....	1	12	1	1	.....	35	8	38
1891	.....	.....	10	.....	4	.....	40	20	30
1892	.....	.....	6	1	1	.....	32	6	27
1893	.....	1	3	.....	2	.....	39	12	29
1894	.....	1	18	.....	1	.....	24	6	28
1895	40	1	8	.....	2	.....	44	8	27
1896	2	.....	11	.....	.....	.....	30	1	34
1897	1	.....	7	.....	20	.....	43	1	25
1898	.....	.....	1	1	34	.....	40	2	25
1899	.....	.....	2	1	3	.....	44	4	54

CAGUAS.

1890	232	6	6	.....	1	1	31	8	94
1891	7	1	2	.....	7	1	26	4	104
1892	1	1	2	.....	7	6	34	5	81
1893	.....	.....	1	.....	3	.....	19	4	91
1894	2	.....	1	.....	19	.....	43	11	77
1895	6	.....	2	1	5	1	38	13	88
1896	.....	.....	1	1	32	.....	37	12	122
1897	.....	.....	.....	3	150	.....	35	5	168
1898	.....	.....	1	1	69	1	34	5	298
1899	.....	.....	.....	3	117	.....	44	20	253

CIALES.

1890	8	.....	5	7	1	.....	10	31	91
1891	8	.....	3	7	.....	.....	12	16	42
1892	12	.....	8	6	3	.....	14	15	112
1893	.....	3	13	5	3	.....	11	9	141
1894	.....	2	3	1	3	.....	9	8	152
1895	3	.....	2	2	.....	.....	15	25	140
1896	.....	.....	.....	4	3	.....	19	25	129
1897	.....	.....	.....	7	1	.....	22	24	230
1898	16	.....	1	6	5	.....	19	29	377
1899	16	.....	13	1	328	.....	9	31	410

CAMUY.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	4	.....	.....	.....	9	.....	3	19	96
1891	3	.....	.....	.....	3	.....	.....	20	84
1892	.....	.....	3	.....	1	.....	.....	17	66
1893	.....	.....	.....	.....	5	1	.....	21	57
1894	.....	.....	.....	2	1	.....	.....	11	27
1895	.....	.....	3	.....	8	.....	9	5	67
1896	2	.....	.....	1	16	.....	1	4	70
1897	.....	.....	4	8	2	.....	17	7	55
1898	.....	.....	5	11	3	1	8	6	91
1899	.....	.....	.....	18	61	.....	18	1	68

COROZAL.

1890	.....	.....	6	.....	3	.....	19	5	17
1891	.....	.....	3	4	1	.....	23	2	5
1892	.....	.....	4	5	.....	2	12	5	11
1893	.....	.....	8	11	.....	.....	19	6	27
1894	.....	.....	8	2	5	.....	21	1	36
1895	10	.....	10	1	3	.....	25	2	38
1896	.....	.....	7	2	.....	.....	21	3	52
1897	.....	.....	8	1	14	.....	16	4	58
1898	.....	.....	2	8	32	.....	18	5	104
1899	.....	.....	1	7	100	.....	16	14	131

CABO-ROJO.

1890	30	.....	8	3	4	3	2	43	131
1891	5	.....	6	6	3	.....	5	33	127
1892	.....	.....	1	12	1	.....	40	38	84
1893	.....	9	2	10	1	1	33	21	35
1894	.....	.....	1	7	55	2	61	19	32
1895	.....	1	4	12	90	.....	59	29	50
1896	.....	.....	7	8	40	.....	38	26	61
1897	25	.....	4	8	19	.....	38	21	56
1898	50	.....	7	16	16	1	45	26	104
1899	1	.....	7	11	23	2	50	23	142

CAYEY.

1890	24	.....	5	6	4	1	20	1	81
1891	4	.....	3	3	.....	1	8	2	81
1892	.....	.....	1	.....	.....	1	12	4	71
1893	.....	.....	1	.....	1	.....	8	4	91
1894	.....	1	3	3	.....	2	14	.....	116
1895	1	1	1	2	43	.....	12	1	122
1896	.....	1	1	.....	13	1	5	.....	113
1897	.....	.....	7	1	55	.....	5	.....	125
1898	.....	.....	2	.....	23	.....	1	1	225
1899	.....	.....	3	.....	10	2	10	2	260

COAMO.

1890	3	2	18	2	5	.....	23	17	19
1891	.....	1	6	3	3	.....	22	21	16
1892	.....	2	3	2	3	.....	20	17	13
1893	.....	11	2	4	2	.....	33	19	18
1894	.....	5	9	8	2	.....	25	13	21
1895	.....	.....	9	8	1	1	34	3	11
1896	.....	.....	4	4	18	.....	18	1	11
1897	1	.....	3	10	86	.....	38	4	39
1898	.....	.....	5	5	5	.....	19	3	42
1899	3	.....	7	9	5	.....	33	5	48

CIDRA.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	12	.....	1	.....	6	.....	1	.....	15
1891	.....	.....	.....	.....	5	1	4	.....	35
1892	1	1	.....	.....	2	.....	2	.....	69
1893	.....	.....	.....	.....	7	.....	4	2	32
1894	.....	.....	3	3	12	1	3	.....	80
1895	.....	.....	.....	.....	.....	.....	5	.....	87
1896	.....	.....	.....	.....	8	1	2	1	42
1897	.....	.....	.....	.....	.....	.....	5	.....	6
1898	.....	.....	.....	.....	1	.....	2	1	24
1899	.....	.....	.....	.....	.....	.....	.....	.....	.....

COMERIO.

1890	52	.....	2	7	.....	.....	2	17	53
1891	.....	.....	2	4	.....	.....	9	14	33
1892	.....	.....	1	5	.....	2	3	9	22
1893	.....	.....	1	1	.....	1	7	10	41
1894	1	.....	1	4	.....	1	11	7	65
1895	1	1	2	1	1	.....	10	6	44
1896	.....	.....	1	.....	15	.....	10	4	74
1897	.....	.....	1	.....	40	1	7	7	84
1898	.....	.....	5	3	47	.....	7	9	161
1899	.....	.....	7	3	9	1	13	4	167

DORADO.

1890	.....	.....	1	.....	1	.....	9	11	16
1891	2	1	2	.....	1	.....	13	9	9
1892	.....	.....	3	.....	2	.....	12	11	18
1893	.....	.....	2	.....	6	.....	11	6	15
1894	.....	.....	1	1	.....	.....	12	6	17
1895	4	.....	5	1	.....	.....	13	4	9
1896	.....	.....	6	.....	1	.....	7	4	10
1897	.....	.....	6	.....	5	.....	6	1	8
1898	.....	.....	2	.....	5	.....	9	2	11
1899	.....	.....	7	2	5	.....	3	8	8

FAJARDO.

1890	3	6	1	2	.....	9	51	27	7
1891	.....	.....	.....	1	16	11	63	26	9
1892	.....	1	3	.....	5	.....	44	44	12
1893	.....	2	.....	5	9	1	61	41	7
1894	6	.....	2	2	14	8	52	24	16
1895	74	3	2	3	11	5	45	20	3
1896	88	.....	1	2	2	12	37	23	.....
1897	9	.....	6	7	9	11	47	30	12
1898	2	1	.....	10	10	6	48	64	25
1899	1	.....	1	6	21	1	30	37	15

GUAYAMA.

1890	9	.....	30	2	8	1	47	13	11
1891	12	.....	17	4	12	.....	48	9	26
1892	.....	.....	13	4	4	.....	47	5	14
1893	.....	.....	6	6	4	1	35	13	20
1894	.....	.....	3	5	6	.....	46	14	16
1895	.....	.....	4	4	7	2	33	19	16
1896	.....	.....	13	6	4	3	41	11	20
1897	.....	.....	8	5	108	1	37	15	44
1898	.....	1	10	2	21	.....	48	9	68
1899	8	.....	11	5	14	2	47	16	57

GUAYANILLA.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	8	.....	1	2	3	.....	22	21	30
1891	.....	32	3	1	.....	1	15	20	20
1892	.....	1	1	1	4	.....	24	18	20
1893	.....	.....	.....	.....	2	.....	25	12	22
1894	.....	.....	.....	1	6	1	13	14	20
1895	.....	.....	1	4	5	2	12	7	46
1896	.....	.....	.....	.....	6	.....	18	5	28
1897	.....	.....	1	.....	3	.....	15	12	41
1898	50	.....	1	2	8	.....	25	9	79
1899	5	.....	1	.....	24	.....	13	12	77

GURABO.

1890	115	.....	6	1	3	.....	1	11	56
1891	2	.....	3	.....	1	.....	3	12	38
1892	1	.....	4	.....	.....	.....	16	9	44
1893	.....	1	9	.....	.....	.....	7	4	45
1894	.....	.....	6	.....	1	.....	11	5	21
1895	1	1	4	1	1	.....	12	16	33
1896	.....	.....	2	.....	.....	.....	14	3	40
1897	.....	.....	1	.....	29	.....	9	2	64
1898	.....	1	7	.....	61	.....	6	4	55
1899	.....	.....	9	1	19	1	15	31	92

HATILLO.

1890	10	.....	.....	.....	9	.....	1	21	71
1891	6	.....	.....	.....	4	.....	.....	21	49
1892	.....	.....	1	.....	4	.....	.....	33	81
1893	.....	.....	.....	.....	8	.....	.....	25	71
1894	.....	.....	.....	.....	9	.....	.....	20	87
1895	.....	1	1	.....	7	.....	.....	30	69
1896	.....	.....	.....	.....	3	.....	.....	29	80
1897	.....	.....	1	.....	1	.....	1	19	72
1898	.....	.....	2	.....	30	.....	2	24	79
1899	.....	.....	2	.....	59	.....	2	1	64

HORMIGUEROS.

1890	35	.....	1	.....	.....	3	10	.....	4
1891	.....	.....	.....	.....	.....	.....	.....	.....	1
1892	.....	.....	1	.....	.....	.....	1	.....	.....
1893	.....	.....	1	.....	.....	.....	3	.....	.....
1894	.....	.....	.....	.....	.....	.....	2	.....	.....
1895	.....	.....	1	2	35	.....	4	5	6
1896	.....	.....	1	.....	4	.....	6	6	7
1897	12	.....	1	.....	6	.....	6	18	14
1898	.....	.....	.....	.....	1	.....	7	16	30
1899	.....	.....	1	.....	1	.....	7	16	30

HATO-GRANDE.

1890	46	1	2	.....	1	.....	17	3	74
1891	48	.....	9	4	2	.....	14	3	69
1892	.....	.....	16	18	6	1	18	8	15
1893	.....	4	.....	19	.....	.....	13	2	20
1894	.....	2	4	17	.....	.....	21	1	4
1895	2	1	4	11	1	1	22	3	10
1896	.....	.....	3	16	10	.....	31	.....	38
1897	.....	.....	2	10	14	.....	9	.....	27
1898	.....	.....	1	19	4	.....	29	1	53
1899	.....	.....	.....	9	10	.....	45	.....	130

HUMACAO.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	30	.....	20	22	26	1	40	11	150
1891	4	1	26	12	13	.....	26	3	95
1892	.....	.....	8	20	18	.....	41	4	140
1893	.....	5	4	30	14	.....	40	1	76
1894	20	.....	51	9	19	.....	57	3	48
1895	77	1	22	22	21	1	38	2	61
1896	.....	1	20	22	44	.....	38	1	97
1897	.....	.....	13	24	107	.....	37	3	78
1898	.....	.....	19	17	44	.....	48	5	75
1899	3	.....	29	8	29	.....	38	9	86

ISABELA.

1890	10	.....	2	4	4	1	13	3	44
1891	.....	1	13	.....	12	.....	24	1	76
1892	1	.....	6	3	20	.....	21	6	48
1893	.....	1	2	.....	3	.....	12	36	45
1894	.....	.....	1	6	1	.....	23	31	58
1895	4	.....	2	2	2	.....	14	38	65
1896	11	1	2	5	2	2	25	27	55
1897	1	.....	2	5	3	.....	22	11	53
1898	.....	.....	.....	4	4	1	38	3	69
1899	.....	.....	.....	1	14	8	25	22	125

JUNCOS.

1890	122	1	3	1	6	.....	24	21	46
1891	4	.....	12	.....	3	.....	19	15	40
1892	.....	.....	4	1	1	.....	17	19	64
1893	.....	.....	6	4	1	.....	15	5	24
1894	.....	.....	8	2	1	.....	15	4	17
1895	.....	.....	3	3	.....	.....	18	5	26
1896	.....	3	18	5	3	.....	22	4	48
1897	.....	.....	4	7	8	.....	22	3	42
1898	.....	.....	.....	11	64	.....	23	1	85
1899	.....	.....	5	5	12	.....	28	3	98

JUANA DIAZ.

1890	223	2	17	20	8	.....	34	35	70
1891	50	2	28	20	6	.....	27	36	95
1892	20	20	21	14	.....	.....	40	37	72
1893	.....	.....	4	6	.....	.....	59	12	76
1894	.....	.....	4	10	7	.....	59	27	54
1895	.....	.....	.....	1	8	.....	50	9	61
1896	.....	.....	2	23	11	.....	43	19	30
1897	.....	.....	13	29	12	.....	51	13	25
1898	9	.....	57	41	7	.....	48	17	35
1899	15	.....	24	2	127	.....	58	27	41

LARES.

1890	54	.....	2	.....	2	.....	13	34	245
1891	.....	.....	2	2	7	.....	21	18	201
1892	.....	2	1	2	6	.....	25	17	237
1893	.....	1	.....	1	4	.....	15	7	189
1894	.....	.....	.....	1	27	.....	20	12	227
1895	6	1	8	1	2	2	17	5	145
1896	9	.....	6	2	6	.....	25	9	212
1897	4	.....	7	4	3	.....	25	10	159
1898	1	.....	9	3	44	.....	42	7	418
1899	.....	.....	2	6	44	.....	19	15	646

LAS MARIAS.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	54	.....	3	3	.....	.....	20	1	42
1891	.....	.....	1	7	1	.....	20	7	34
1892	.....	.....	.....	3	8	.....	11	6	71
1893	.....	.....	2	1	4	.....	11	3	25
1894	.....	.....	.....	4	7	.....	21	4	32
1895	10	.....	1	6	3	.....	16	11	26
1896	5	.....	.....	.....	5	.....	3	15	19
1897	3	.....	.....	1	1	.....	10	8	46
1898	1	.....	1	.....	7	.....	19	5	127
1899	.....	.....	5	11	36	.....	9	2	102

LAJAS.

1890	30	.....	.....	17	12	.....	2	4	12
1891	13	.....	.....	10	6	1	1	3	13
1892	.....	.....	.....	18	15	.....	2	7	7
1893	.....	.....	.....	19	25	.....	.....	5	10
1894	.....	.....	.....	7	17	.....	.....	9	27
1895	.....	.....	1	11	23	.....	12	8	17
1896	.....	.....	.....	3	2	.....	16	2	35
1897	5	.....	1	5	4	.....	13	3	21
1898	99	.....	2	8	9	.....	12	4	68
1899	2	.....	3	9	8	.....	6	16	62

LOIZA.

1890	.....	.....	16	2	2	3	28	7	31
1891	.....	.....	5	6	3	.....	11	14	23
1892	.....	.....	13	4	3	.....	14	14	24
1893	.....	.....	6	11	2	2	13	19	15
1894	3	.....	6	9	.....	1	13	28	15
1895	2	.....	6	5	1	.....	14	17	10
1896	.....	.....	25	3	3	.....	15	10	26
1897	.....	.....	13	2	36	2	12	16	18
1898	.....	.....	13	8	39	1	17	11	22
1899	.....	.....	8	7	12	.....	15	14	30

MANATI.

1890	8	.....	6	5	5	.....	18	5	11
1891	117	.....	5	2	3	1	19	5	11
1892	.....	.....	.....	3	1	.....	22	11	47
1893	.....	.....	.....	11	2	.....	24	11	73
1894	2	1	2	5	6	2	29	9	97
1895	39	1	3	5	2	4	25	2	71
1896	12	1	6	6	6	1	14	9	96
1897	.....	.....	11	9	18	.....	28	4	131
1898	.....	.....	2	6	21	.....	45	3	166
1899	1	.....	.....	7	19	.....	23	2	164

MOROVIS.

1890	.....	.....	4	1	.....	.....	2	1	30
1891	.....	.....	7	3	.....	1	1	10	17
1892	.....	.....	4	7	1	1	.....	14	38
1893	.....	.....	6	5	.....	.....	3	18	33
1894	.....	.....	8	7	1	.....	2	19	41
1895	1	.....	2	3	.....	.....	10	21	68
1896	.....	.....	9	4	1	1	17	21	42
1897	.....	.....	2	4	4	3	15	19	79
1898	3	.....	2	2	31	.....	13	20	139
1899	1	.....	1	9	38	.....	7	16	84

MAYAGUEZ.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	225	2	9	7	27	6	164	30	132
1891	.....	3	.....	2	7	1	41	7	36
1892	.....	27	8	3	43	2	143	28	256
1893	.....	5	11	3	20	3	142	31	140
1894	.....	.....	6	10	52	7	168	46	142
1895	.....	14	6	11	196	1	154	45	126
1896	11	1	13	27	116	4	148	51	144
1897	219	.....	17	15	54	6	192	45	153
1898	12	.....	26	5	63	6	212	46	240
1899	.....	.....	27	13	95	7	186	64	210

MARICAO.

1890	21	.....	.....	17	.....	.....	1	54	55
1891	.....	.....	15	7	7	.....	4	49	56
1892	.....	.....	36	4	12	.....	3	25	49
1893	.....	.....	37	4	11	.....	.....	39	46
1894	.....	1	33	3	49	.....	14	44	62
1895	.....	.....	33	22	23	23	4	41	63
1896	.....	.....	41	1	22	.....	22	38	68
1897	2	.....	21	1	17	1	24	32	52
1898	2	.....	28	1	21	31	25	57	114
1899	.....	.....	2	1	19	1	5	42	132

MAUNABO.

1890	.....	.....	4	2	9	.....	10	12	150
1891	5	1	3	.....	3	.....	11	17	159
1892	.....	.....	15	.....	12	.....	15	15	190
1893	.....	.....	2	1	2	.....	11	11	145
1894	.....	.....	3	.....	9	.....	14	8	128
1895	2	.....	2	.....	11	.....	10	11	155
1896	1	.....	2	2	16	.....	16	8	172
1897	.....	.....	2	1	17	.....	10	6	295
1898	.....	.....	.....	.....	5	.....	8	14	225
1899	.....	.....	5	.....	6	.....	5	18	290

MOCA.

1890	.....	3	10	.....	5	1	17	2	67
1891	2	5	3	.....	4	1	12	2	98
1892	.....	1	7	2	4	.....	12	2	56
1893	.....	.....	33	.....	.....	.....	3	1	64
1894	.....	.....	10	1	3	.....	7	1	103
1895	13	1	21	.....	1	1	19	1	108
1896	13	1	14	.....	9	.....	8	2	102
1897	.....	.....	13	.....	14	.....	15	1	145
1898	4	.....	4	.....	12	.....	12	3	312
1899	.....	.....	7	.....	91	2	6	2	327

NAGUABO.

1890	3	.....	2	.....	14	1	28	8	33
1891	.....	1	.....	11	2	.....	29	1	29
1892	1	.....	.....	14	3	.....	21	1	41
1893	.....	3	5	12	5	.....	24	2	47
1894	.....	.....	11	1	2	.....	28	.....	34
1895	11	.....	5	.....	6	1	19	11	51
1896	.....	.....	.....	5	4	.....	24	4	71
1897	.....	.....	2	22	69	.....	36	1	71
1898	.....	.....	11	1	28	.....	9	9	106
1899	.....	.....	2	4	14	.....	22	16	122

NARANJITO.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	.....	.....	1	.....	5	.....	3	.....	42
1891	.....	.....	2	.....	2	2	11	1	35
1892	.....	.....	3	.....	3	1	11	1	42
1893	.....	.....	3	.....	2	1	3	2	52
1894	1	.....	.....	.....	4	.....	1	.....	56
1895	.....	.....	6	.....	11	.....	17	1	24
1896	.....	.....	2	4	11	.....	9	.....	22
1897	.....	.....	1	10	11	.....	14	.....	52
1898	.....	.....	.....	3	3	.....	8	.....	23
1899	.....	.....	.....	6	18	.....	5	1	89

PATILLAS.

1890	41	.....	18	.....	5	.....	39	16	42
1891	107	2	19	.....	.....	1	30	1	19
1892	4	.....	5	1	2	.....	42	1	33
1893	.....	.....	2	.....	.....	1	27	.....	37
1894	.....	.....	.....	1	3	.....	33	.....	52
1895	2	1	3	.....	19	.....	28	.....	40
1896	.....	.....	1	.....	12	2	18	1	75
1897	.....	.....	7	.....	67	2	17	6	97
1898	.....	.....	17	.....	10	.....	13	1	65
1899	.....	.....	.....	.....	10	1	15	2	66

PENUELAS.

1890	1	3	4	10	1	.....	30	16	.....
1891	.....	3	1	9	.....	.....	21	14	2
1892	.....	2	8	15	.....	.....	14	16	.....
1893	.....	2	14	10	.....	.....	36	18	2
1894	.....	2	3	3	.....	.....	40	12	14
1895	.....	1	10	7	.....	.....	13	8	4
1896	.....	1	10	17	.....	.....	37	5	.....
1897	.....	1	3	8	.....	1	16	10	.....
1898	7	.....	8	10	.....	2	24	15	6
1899	28	.....	10	13	.....	.....	22	11	24

PIEDRAS.

1890	33	.....	11	9	1	.....	18	1	22
1891	6	.....	4	1	7	.....	7	.....	41
1892	.....	.....	.....	.....	.....	.....	.....	.....	.....
1893	.....	.....	.....	.....	.....	2	2	.....	2
1894	.....	.....	16	3	4	.....	18	.....	6
1895	2	1	10	5	1	.....	6	.....	12
1896	1	.....	3	.....	3	.....	8	.....	38
1897	.....	.....	1	.....	.....	.....	3	2	18
1898	.....	.....	.....	1	.....	.....	7	.....	13
1899	.....	.....	7	15	3	.....	17	4	50

PONCE.

1890	20	.....	14	23	38	.....	254	24	41
1891	3	3	18	15	22	5	211	4	53
1892	.....	3	2	13	3	4	238	15	45
1893	.....	.....	9	7	29	2	241	7	64
1894	12	2	12	11	43	.....	266	17	32
1895	7	.....	7	16	21	.....	239	11	18
1896	17	4	22	12	18	2	219	4	36
1897	11	.....	.....	9	11	.....	221	8	49
1898	.....	.....	3	19	14	.....	211	17	61
1899	18	.....	7	14	19	.....	244	19	39

QUEBRADILLAS.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	33	2	.....	.....	1	.....	1	.....	31
1891	.....	.....	.....	.....	.....	.....	.....	.....	.....
1892	.....	.....	.....	.....	.....	.....	.....	.....	.....
1893	.....	.....	4	4	2	.....	.....	5	1
1894	.....	7	2	1	4	.....	8	14	15
1895	.....	12	1	1	.....	.....	9	10	13
1896	1	.....	9	10	2	.....	3	6	5
1897	.....	.....	2	8	8	1	27	7	14
1898	.....	2	3	7	.....	2	16	8	28
1899	.....	.....	.....	1	.....	.....	.....	.....	.....

RIO GRANDE.

1890	.....	.....	2	.....	1	.....	14	4	3
1891	.....	.....	.....	.....	8	.....	12	4	15
1892	.....	.....	1	.....	1	.....	8	1	7
1893	.....	.....	22	2	3	.....	37	9	23
1894	.....	.....	1	.....	1	.....	8	1	7
1895	.....	11	11	3	9	1	10	4	20
1896	.....	.....	.....	3	8	1	11	3	1
1897	.....	.....	.....	.....	53	.....	7	3	10
1898	.....	.....	.....	2	130	.....	8	4	10
1899	.....	.....	.....	.....	24	.....	7	7	2

RIO PIEDRAS.

1890	4	1	8	1	24	.....	38	33	41
1891	14	1	12	8	27	1	49	40	41
1892	.....	.....	5	.....	6	.....	43	31	45
1893	.....	3	3	15	10	.....	49	27	42
1894	43	.....	2	18	7	2	42	26	55
1895	136	2	2	38	11	.....	39	28	45
1896	.....	.....	4	31	18	.....	47	29	71
1897	.....	.....	1	17	51	.....	36	12	50
1898	1	.....	2	1	34	.....	46	.....	88
1899	.....	.....	4	.....	1	.....	47	1	124

RINCON.

1890	43	.....	1	.....	.....	.....	5	5	4
1891	.....	.....	1	.....	.....	.....	.....	6	4
1892	.....	1	1	.....	1	.....	1	3	4
1893	.....	1	3	.....	1	.....	6	21	3
1894	.....	.....	7	.....	4	.....	12	23	17
1895	.....	.....	4	.....	6	.....	8	31	3
1896	4	.....	9	.....	5	.....	8	24	2
1897	24	2	6	.....	5	.....	6	21	3
1898	5	.....	2	.....	3	.....	8	17	10
1899	.....	.....	4	.....	14	.....	10	29	5

SAN SEBASTIAN.

1890	.....	.....	8	.....	4	.....	1	8	122
1891	.....	.....	1	.....	7	.....	.....	3	115
1892	.....	.....	3	9	4	.....	25	6	63
1893	.....	.....	5	15	.....	.....	17	2	74
1894	.....	.....	5	17	4	.....	25	5	100
1895	40	.....	5	8	2	.....	12	.....	137
1896	29	1	9	7	1	.....	21	9	115
1897	.....	2	7	8	1	1	14	8	140
1898	1	.....	6	12	3	2	19	8	211
1899	.....	.....	.....	7	36	.....	10	2	287

SABANA GRANDE.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	6	4	12	3	3	.....	25	.....	9
1891	.....	3	4	13	7	1	19	.....	8
1892	.....	.....	3	18	4	.....	24	1	33
1893	.....	.....	1	19	1	1	14	1	5
1894	1	.....	.....	10	11	.....	20	.....	16
1895	.....	.....	1	11	55	.....	16	1	15
1896	.....	.....	2	16	19	.....	16	.....	9
1897	54	.....	.....	8	18	.....	21	2	44
1898	4	.....	1	20	20	.....	19	.....	31
1899	1	.....	3	16	10	.....	16	3	46

SAN GERMAN.

1890	272	.....	13	9	12	.....	21	52	40
1891	6	.....	4	3	17	.....	13	49	26
1892	.....	.....	8	4	18	.....	15	51	24
1893	.....	1	5	7	17	.....	20	38	24
1894	.....	.....	12	4	14	.....	15	59	21
1895	.....	.....	4	4	160	.....	15	31	22
1896	.....	.....	8	5	51	.....	19	19	23
1897	29	.....	8	4	32	2	17	15	38
1898	38	.....	9	7	44	.....	17	11	61
1899	7	.....	3	12	66	1	26	16	99

SAN JUAN.

1890	4	100	26	33	13	4	177	32	14
1891	8	18	15	23	4	4	196	39	14
1892	.....	91	18	25	8	20	167	31	25
1893	.....	62	20	29	6	6	177	41	18
1894	159	79	15	20	1	4	221	24	16
1895	81	294	17	28	4	4	207	23	20
1896	3	43	17	25	8	3	208	28	27
1897	2	.....	29	30	86	1	258	20	41
1898	.....	.....	26	23	14	.....	219	25	24
1899	.....	.....	18	22	11	9	137	29	25

SALINAS.

1890	21	.....	1	3	.....	.....	8	.....	17
1891	.....	.....	5	.....	.....	.....	13	1	12
1892	.....	.....	.....	.....	.....	.....	13	.....	4
1893	.....	.....	5	.....	.....	.....	14	4	6
1894	1	.....	3	.....	.....	.....	6	2	4
1895	.....	.....	2	.....	.....	.....	3	1	.....
1896	.....	.....	4	.....	.....	.....	12	1	4
1897	.....	.....	1	.....	.....	.....	1	.....	5
1898	.....	.....	6	.....	.....	.....	7	.....	15
1899	.....	.....	2	6	.....	.....	8	5	12

SANTA ISABEL.

1890	.....	2	2	.....	4	.....	18	6	2
1891	.....	8	8	.....	2	.....	14	9	.....
1892	.....	6	6	.....	6	.....	9	7	1
1893	.....	2	2	.....	4	.....	15	11	4
1894	.....	.....	2	.....	3	.....	18	5	3
1895	.....	.....	.....	.....	7	.....	10	5	.....
1896	.....	.....	1	.....	8	.....	11	7	2
1897	.....	.....	1	.....	5	.....	17	6	4
1898	1	.....	1	.....	6	.....	16	8	3
1899	.....	.....	4	.....	3	.....	20	7	5

TOA ALTA.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	3	1	5	2	2	1	20	10	24
1891	.....	.....	1	1	3	.....	15	9	29
1892	.....	.....	.....	4	4	.....	19	9	19
1893	.....	.....	1	1	1	.....	20	9	13
1894	8	.....	.....	.....	2	.....	22	10	25
1895	3	.....	.....	.....	.....	.....	10	8	12
1896	.....	1	.....	.....	.....	.....	15	6	26
1897	.....	.....	.....	.....	20	.....	18	5	36
1898	.....	.....	4	2	18	1	17	6	26
1899	.....	.....	2	1	3	.....	26	7	30

TOA BAJA.

1890	.....	.....	1	.....	.....	.....	.....	6	.....
1891	.....	.....	7	.....	1	.....	.....	4	1
1892	.....	.....	.....	.....	3	.....	5	.....	1
1893	.....	.....	.....	.....	.....	.....	4	3	1
1894	5	.....	.....	.....	.....	.....	.....	1	.....
1895	12	1	.....	1	.....	1	6	3	5
1896	.....	.....	.....	.....	1	1	9	4	23
1897	.....	.....	1	.....	2	.....	8	3	40
1898	.....	.....	.....	2	8	.....	2	3	9
1899	.....	.....	.....	3	6	1	3	3	12

TRUJILLO ALTO.

1890	1	.....	1	.....	1	1	1	21	29
1891	.....	1	1	.....	.....	.....	1	16	19
1892	.....	.....	.....	.....	.....	.....	7	10	40
1893	.....	.....	1	.....	.....	.....	18	10	35
1894	3	.....	.....	.....	1	3	20	4	16
1895	2	.....	.....	.....	.....	2	1	9	13
1896	.....	.....	.....	.....	.....	1	8	5	12
1897	.....	.....	1	.....	18	1	7	9	33
1898	.....	.....	.....	.....	18	2	5	2	17
1899	.....	.....	.....	.....	6	.....	3	8	22

UTUADO.

1890	203	.....	2	.....	109	1	13	1	196
1891	121	3	1	.....	28	.....	3	35	145
1892	6	.....	17	1	180	.....	9	54	302
1893	.....	9	23	1	30	.....	8	105	292
1894	3	4	26	.....	15	1	12	97	403
1895	.....	4	30	1	93	.....	13	114	533
1896	.....	1	93	3	127	.....	12	87	480
1897	108	.....	81	.....	108	.....	12	85	560
1898	46	6	14	2	394	.....	11	63	992
1899	104	.....	34	13	1,036	.....	46	89	1,043

VEGA ALTA.

1890	.....	.....	.....	.....	.....	.....	18	2	4
1891	.....	.....	.....	.....	.....	.....	18	3	8
1892	.....	.....	.....	.....	1	.....	24	1	15
1893	.....	.....	2	.....	1	.....	29	2	34
1894	.....	.....	.....	.....	.....	.....	20	2	32
1895	.....	1	.....	.....	1	1	16	.....	32
1896	.....	.....	2	8	1	.....	18	2	29
1897	.....	.....	3	5	18	.....	29	.....	55
1898	.....	.....	1	1	17	.....	23	.....	48
1899	.....	.....	1	.....	54	.....	12	1	62

VEGA BAJA.

Year.	Smallpox.	Yellow fever.	Typhoid fever.	Meningitis.	Dysentery.	Diphtheria.	Tuberculosis.	Tetanus.	Anæmia.
1890	.....	.....	5	1	8	.....	29	28	46
1891	5	.....	2	4	.....	.....	29	17	9
1892	.....	1	.....	.....	.....	.....	31	28	10
1893	.....	.....	2	1	3	.....	17	17	24
1894	3	.....	3	6	.....	.....	16	30	20
1895	117	.....	1	6	.....	.....	22	24	7
1896	4	.....	.....	2	1	4	31	21	19
1897	.....	.....	.....	2	40	3	20	20	41
1898	.....	.....	1	5	19	.....	34	23	48
1899	1	.....	.....	4	26	.....	27	19	48

VIEQUES.

1890	.....	1	20	.....	31	.....	18	3	8
1891	.....	.....	20	.....	48	2	15	1	1
1892	.....	.....	15	.....	52	.....	23	1	.....
1893	.....	.....	10	.....	26	9	14	3	1
1894	.....	4	17	2	38	4	11	1	.....
1895	.....	.....	13	1	11	2	12	.....	2
1896	.....	.....	22	1	7	.....	22	.....	4
1897	.....	.....	13	.....	16	.....	10	1	7
1898	.....	.....	13	.....	28	.....	13	1	7
1899	.....	.....	14	.....	25	.....	17	.....	2

YAUCO.

1890	1	4	.....	2	.....	.....	99	13	35
1891	.....	3	.....	.....	.....	.....	70	31	30
1892	.....	4	.....	2	.....	.....	54	53	58
1893	.....	.....	.....	6	4	1	39	39	94
1894	.....	.....	3	4	49	4	61	21	43
1895	.....	.....	.....	1	17	.....	33	18	44
1896	.....	.....	.....	2	2	.....	72	9	48
1897	50	.....	2	7	1	.....	87	24	55
1898	193	.....	5	3	.....	.....	110	28	195
1899	20	.....	6	1	28	.....	83	34	263

All records for Yabucoa destroyed by hurricane.

The following is the aggregate for the island of the preceding tables, with the per cent of total deaths caused by each disease in each year:

Disease.	1890.		1891.		1892.		1893.		1894.	
	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.
Smallpox	2,362	8.9	664	2.08	61	0.25	11	0.05	372	1.5
Yellow fever	152	.57	97	.41	185	.78	133	.6	116	.47
Typhoid fever	409	1.5	369	1.56	364	1.53	331	1.5	365	1.48
Meningitis	256	.96	227	.96	264	1.11	297	1.34	261	1.05
Dysentery	518	1.95	377	1.06	557	2.35	405	1.83	661	2.67
Diphtheria	44	.16	43	.18	44	.18	38	.17	50	.2
Tuberculosis	1,754	6.6	1,528	6.47	1,683	7.1	1,706	7.7	1,978	8
Tetanus	986	3.7	898	3.8	1,043	4.4	1,012	4.58	991	4
Anæmia	3,450	13	2,994	12.7	3,508	14.8	3,240	14.2	3,448	13.96

Disease.	1895.		1896.		1897.		1898.		1899.	
	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent of total deaths.	Number of deaths.	Per cent o total deaths.	Number of deaths.	Per cent of total deaths.
Smallpox	921	3.6	472	1.9	592	1.94	522	1.56	a 242	0.6
Yellow fever	360	1.4	76	.3	9	.03	23	.07	0	0
Typhoid fever	347	1.35	479	1.94	405	1.32	416	1.24	346	.86
Meningitis	314	1.22	345	1.4	359	1.17	358	1.07	370	.92
Dysentery	969	3.78	867	3.52	1,974	6.47	1,913	5.74	3,568	8.94
Diphtheria	63	.24	43	.17	44	.14	67	.2	45	.11
Tuberculosis	1,814	7.08	1,836	7.46	1,938	6.35	2,094	6.28	1,910	4.8
Tetanus	950	3.71	870	3.53	794	2.6	888	2.66	1,084	2.71
Anæmia	3,520	13.75	3,904	15.87	4,723	15.48	7,369	22.13	8,977	22.5

a All but one previous to June 30, 1899.

Immediately previous to the month of October, 1899, owing to the demoralization consequent upon the hurricane, very incomplete reports were made to this board. It is therefore impossible to complete the statistics for the entire past year, and because of the impracticability of securing statistics of different diseases comparison is not possible.

The statistics here given are for the seven months ending April 30, 1900, only.

The total mortality for this period was 23,936, which is at the rate of 42 per 1,000 per annum. Stillbirths are not included in the following tables of deaths or births:

Month.	Number of deaths.	Rate per thousand per annum.
October	4,581	57
November	4,674	58
December	3,967	49
January	3,297	41
February	2,475	31
March	2,524	31
April	2,418	30

ZYMOTIC MORTALITY.

This class of diseases includes the ten commonly occurring and generally recognized infectious diseases, namely: Cerebro-spinal meningitis, typhoid fever, malarial fever, smallpox, scarlet fever, measles, erysipelas, whooping cough, diphtheria, and diarrheal diseases. No cases of yellow fever were reported.

There were 7,479 deaths during the seven months from this group, which was about 31.2 per cent of the total mortality.

During each of the months there were:

Month.	Average daily mortality from zymotic diseases.	Per cent of total mortality from zymotic diseases.	Deaths per 100,000 of population from zymotic diseases.
October	50.4	6.5	163
November	55.5	6.96	175
December	43.0	5.58	140
January	30.6	3.96	98
February	22.6	2.65	66
March	22.7	2.9	74
April	20.9	2.62	66

The following shows the number of deaths from each of the zymotic group in each of the seven months:

Month.	Cerebro-spinal meningitis.	Typhoid fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Diphtheria and croup.	Diarrheal diseases.	Total.
October	10	24	200	.....	.....	12	2	41	10	1,264	1,563
November	8	18	185	1	.....	8	2	47	6	1,391	1,666
December	2	17	252	.....	.....	5	2	39	4	1,015	1,336
January	4	15	228	.....	.....	7	.....	31	7	657	949
February	3	13	190	.....	1	3	6	14	5	399	634
March	1	21	233	.....	2	3	2	24	6	411	703
April	1	19	226	.....	.....	.....	1	20	1	360	628
Total	29	127	1,514	1	3	38	15	216	39	5,497	7,479

Per cent of total deaths from each disease of the zymotic group during seven months.

Cerebro-spinal meningitis	0.12
Typhoid fever	.53
Malarial diseases	6.32
Smallpox	.0
Scarlet fever	.01
Measles	.15
Erysipelas	.06
Whooping cough	.9
Diphtheria and croup	.15
Diarrheal diseases	22.9

The following shows the mortality by month from anemia, consumption, and certain other diseases specially classified:

Month.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Urinary diseases.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
October	1,270	174	142	62	30	53	95	119	16	30	60	791
November	1,296	207	145	72	42	59	82	157	10	13	61	665
December	1,153	217	138	70	32	42	96	108	16	24	47	571
January	902	219	111	58	26	63	97	116	20	26	51	577
February	624	154	133	70	19	62	68	106	11	27	55	430
March	602	197	130	47	18	72	73	123	16	27	73	408
April	609	195	126	39	15	62	69	89	12	33	53	415
Total	6,456	1,363	925	418	182	413	580	818	101	180	400	3,857

The following gives per cent of total mortality of each class, and number of deaths per 100,000 population for each class:

Disease.	Per cent of total mortality.	Deaths per 100,000 of population.
Anæmia	26.9	679
Acute respiratory diseases	5.69	143
Consumption	3.86	97
Puerperal diseases	1.74	44
Urinary diseases	.76	19
Circulatory system	1.72	43
Nervous system	2.42	61
Tetanus	3.41	86
Cancer	.42	10
Accident and violence	.75	18
Old age	1.67	42
Unclassified	16.11	406

The following table gives the number of deaths under 1 year, number under 5 years, and the number over 60 years, in each month, with per cent of total deaths:

Months.	Deaths under 1 year.	Total deaths.	Deaths under 5 years.	Total deaths.	Deaths over 60 years.	Total deaths.
		Per cent.		*Per cent.*		*Per cent.*
October	620	13.66	1,692	36.93	439	9.58
November	713	15.25	1,762	37.7	412	8.81
December	571	14.4	1,347	33.95	429	10.81
January	498	15.1	1,096	33.24	350	10.6
February	372	15.0	800	32.32	303	11.83
March	406	16.08	839	33.24	315	12.48
April	367	15.17	780	30.19	310	13.19

The total deaths under one year for the seven months was 3,547, which was 14.81 per cent of total deaths.

The deaths under five years for the same period were 8,266, which was 34.53 per cent of total deaths.

The deaths over sixty years for the same period were 2,558, which was 10.68 per cent of the total mortality.

Consolidated report of vital statistics of Porto Rico for October, November, and December, 1899.

OCTOBER.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																					
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Adjuntas	19,484	213	6	28	12	10	68	26	0	0	0	0	0	0	4	0	2	0	70	61	9	4	1	20	0	0	11	0	0	0	0	31
Aibonito	8,596	216	3	10	0	5	12	9	0	0	0	0	0	0	0	0	0	0	12	23	0	1	0	6	0	0	0	0	0	0	1	3
Aguada	10,581	83	0	28	0	17	36	14																								
Aguadilla	17,830	70	12	8	1	8	27	12	0	0	0	1	0	0	1	0	0	0	11	7	0	3	1	18	0	3	4	1	1	0	1	16
Aguas Buenas	7,977	42	4	20	0	5	17	2	0	0	0	1	0	0	0	0	0	0	0	12	5	0	0	8	0	0	0	0	0	0	0	16
Añasco	13,311	80	3	78	2	11	24	14	0	0	0	7	0	0	0	0	3	0	2	0	1	3	0	0	0	0	0	3	0	0	0	61
Arecibo	36,910	201	5	70	8	48	93	14	0	0	0	4	0	0	0	0	1	0	36	78	4	7	3	42	0	1	3	10	0	1	5	6
Arroyo	4,866	25	1	14	1	3	10	5	0	0	0	5	0	0	0	0	1	0	5	2	0	0	0	1	0	0	2	0	0	1	3	6
Barranquitas	8,103	73	2	15	0	8	25	8	0	3	0	0	0	0	0	0	3	0	42	12	0	0	0	4	0	0	2	0	1	0	0	6
Barros	14,845	95	3	25	2	13	32	9	0	2	0	0	0	0	0	0	2	0	9	64	2	0	0	6	0	0	2	0	0	0	4	6
Barceloneta	9,357	78	0	26	0	8	21	8	0	0	0	0	0	0	0	0	0	0	0	54	6	3	0	8	0	0	2	3	0	0	0	2
Bayamon	19,940	85	2	24	0	17	35	8	0	0	0	7	0	0	0	0	1	0	14	14	3	4	1	7	0	3	2	5	3	0	0	21
Carolina	11,965	31	2	11	0	3	13	2	0	0	0	0	0	0	0	0	3	0	0	9	2	4	1	5	0	0	0	0	0	0	0	7
Caguas	19,857	116	0	0	3	20	55	1	0	0	0	1	0	0	0	0	0	0	39	25	3	0	4	14	1	2	2	4	0	0	0	21
Ciales	18,115	218	3	25	0	29	80	13	0	0	0	0	0	0	2	0	0	0	117	73	2	0	0	0	0	0	1	5	0	0	0	18
Camuy	10,887	52	0	14	0	10	29	4	6	0	0	1	0	0	0	0	0	0	0	8	0	0	3	26	0	0	0	0	0	0	0	8
Corozal	11,508	78	5	23	3	9	31	4	0	0	0	3	0	0	0	0	1	0	35	13	3	1	1	1	2	2	5	3	0	0	0	8
Cabo Rojo	16,154	43	6	38	0	2	12	6	0	1	0	2	0	0	0	0	0	0	0	7	7	3	1	2	2	2	0	0	0	1	3	12
Coamo	15,144	35	1	32	3	5	17	0	0	0	0	6	0	0	0	0	0	0	0	10	2	0	2	4	0	0	3	6	0	0	0	8
Cayey	1,442	82	7	28	6	9	25	11	0	0	0	4	0	0	0	0	0	0	3	37	3	2	7	3	0	3	2	2	0	0	2	14
Cidra	7,552																															
Comerio	8,249	46	4	26	4	5	11	1	0	0	0	0	0	0	0	0	0	0	1	33	0	1	0	7	0	0	0	0	1	0	1	2
Culebra	704	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Dorado	3,804	9	1	8	0	1	4	2	0	0	0	1	0	0	0	0	0	0	2	1	0	1	0	0	0	0	0	0	1	0	0	3
Fajardo	16,782	30	8	11	3	5	19	3	0	0	0	5	0	0	0	0	0	4	1	0	3	1	0	2	0	1	0	1	0	0	0	7
Guayama	12,749	56	0	0	0	19	37	3	0	1	0	3	0	0	0	0	0	0	7	2	2	0	0	21	0	0	3	6	0	0	0	13
Guayanilla	9,540	54	5	27	0	8	21	2	0	0	0	8	0	0	0	0	0	0	7	15	1	2	0	4	2	1	1	2	0	1	3	7
Gurabo	8,700	30	9	28	0	6	16	4	0	0	0	0	0	0	0	0	0	1	4	10	1	0	0	2	0	0	0	2	0	0	0	10
Hatillo	10,449	49	2	30	0	9	17	11	0	0	0	0	0	0	4	0	0	4	18	6	0	1	0	0	0	1	0	1	0	0	0	14

Consolidated report of vital statistics of Porto Rico for October, November, and December, 1899—Continued.

OCTOBER—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																					
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Hato Grande	13,433	39	9	44	0	9	11	1	0	0	0	0	0	0	0	0	0	0	0	20	0	4	1	2	0	0	0	2	0	0	0	10
Humacao	14,313	67	8	32	2	8	22	15	0	5	0	5	0	0	0	1	0	0	4	17	4	1	1	5	1	0	4	6	0	0	0	13
Isabela	14,888	98	2	18	0	14	40	13	0	0	0	0	0	0	0	0	0	0	1	16	2	1	1	59	0	0	0	2	0	0	14	2
Juana Diaz	27,896	140	4	0	0	15	57	17	0	1	0	45	0	0	0	0	2	0	0	1	6	9	0	28	1	1	0	2	1	0	0	43
Juncos	8,429	38	0	2	0	1	16	0	0	0	0	2	0	0	0	0	0	0	0	12	1	3	3	9	1	1	0	0	0	0	0	5
Lares	20,883	224	6	49	9	18	66	21	0	0	0	0	0	0	0	0	0	0	12	145	11	0	0	26	1	0	2	8	2	11	0	6
Las Marias	11,279	59	0	9	5	3	16	5	0	0	0	1	0	0	0	0	0	0	7	13	5	2	4	1	0	0	3	0	1	0	5	17
Lajas	8,789	28	2	26	0	3	9	5	0	0	0	0	0	0	0	0	1	0	1	8	0	0	0	0	0	0	5	1	0	1	3	8
Loiza	12,522																															
Manati	13,989	46	2	11	0	7	19	3	0	0	0	1	0	0	0	0	1	0	4	16	4	0	0	6	0	2	0	3	0	0	0	9
Morovis	11,309																															
Mayaguez	38,915	158	17	58	12	34	71	13	0	0	0	6	0	0	0	0	5	0	14	21	10	8	2	30	2	7	8	9	1	5	0	30
Maricao	8,312	64	1	9	0	0	8	2																								
Maunabo	6,221	38	1	8	0	2	11	4	0	2	0	13	0	0	0	0	0	0	1	7	1	0	2	4	0	2	0	2	0	1	0	3
Moca	12,410	121	2	11	1	3	24	15	0	0	0	0	0	0	1	0	1	0	15	70	2	1	3	8	0	0	0	0	0	0	7	13
Naguabo	10,873	46	6	16	3	9	20	4	0	0	0	0	0	0	0	0	0	1	1	12	6	2	2	6	0	0	0	4	0	1	0	11
Naranjito	8,101	41	2	13	1	5	12	4	0	0	0	0	0	0	0	0	0	0	7	11	2	1	1	5	0	3	2	1	0	0	0	8
Patillas	11,163																															
Peñuelas	12,129																															
Piedras	8,602	22	3	27	0	0	3	4	0	0	0	2	0	0	0	0	0	0	0	6	1	2	0	0	0	1	0	1	0	1	0	8
Ponce	55,477	254	33	75	26	49	107	30	4	1	0	17	0	0	0	0	2	0	19	24	11	27	1	74	6	2	7	4	2	1	0	52
Quebradillas	7,432	32	3	6	0	1	15	3																								
Rio Grande	12,365	30	6	10	0	9	21	3	0	0	0	0	0	0	0	1	0	0	6	1	1	0	2	0	1	0	0	3	0	0	0	15
Rio Piedras	13,760	58	3	6	6	6	20	5	0	0	0	1	0	0	0	0	4	0	0	13	6	6	1	13	1	1	0	0	0	0	0	12
Rincon	6,641	23	1	29	0	4	10	4	0	1	0	0	0	0	0	0	0	0	3	2	0	2	1	0	0	0	0	2	0	0	0	12
San Sebastian	16,412																															
Sabana Grande	10,560	49	1	25	3	7	25	1	0	0	0	1	0	0	0	0	0	0	0	20	3	2	0	11	0	1	4	3	0	0	0	4
San German	20,246	122	13	63	0	8	26	16	0	1	0	0	0	0	0	0	2	0	5	58	7	6	3	5	0	2	2	0	2	0	4	25
Salinas	5,731	24	2	11	1	3	9	3	0	0	0	4	0	0	0	0	0	0	3	3	0	0	0	1	0	0	0	0	0	1	0	12

San Juan	32,048	74	23	40	8	18	22	10	0	1	0	3	0	0	0	0	0	0	4	2	7	13	0	15	2	6	7	0	0	2	2	10
Santa Isabel	4,858																															
Toa Alta	7,908	37	3	6	2	2	14	3	0	0	0	19	0	0	0	0	0	0	0	7	0	1	0	7	1	0	1	0	0	0	1	0
Toa Baja	4,030	15	2	5	0	1	5	5	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	1	0	1	1	0	0	0	1	3
Trujillo Alto	5,683	9	1	6	0	2	3	2	0	0	0	2	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3	0	0	0	1
Utuado	43,860	308	6	46	0	33	94	17	0	4	0	5	0	0	0	0	0	0	119	114	0	1	2	5	0	0	5	5	1	0	0	47
Vega Alta	6,107	36	5	13	3	3	13	3	0	0	0	2	0	0	0	0	5	0	17	6	1	1	0	0	0	0	0	0	0	0	0	4
Vega Baja	10,305	44	4	12	0	9	18	4	0	0	0	1	0	0	0	0	0	6	0	13	1	4	1	1	1	2	0	5	0	1	0	8
Vieques	5,938	18	0	21	0	6	10	1	0	1	0	5	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	3	0	1	0	3
Yabucoa	13,905																															
Yauco	27,119	197	5	65	2	32	88	7	0	0	0	6	0	0	0	0	1	0	19	47	20	2	5	19	4	2	0	2	0	0	0	70

NOVEMBER.

Adjuntas	19,484	233	8	38	2	26	89	20	0	0	0	0	0	0	4	0	3	0	79	78	17	2	0	17	0	0	0	4	0	0	10	19
Aibonito	8,596	35	1	18	0	3	13	4	0	0	0	1	0	0	0	0	1	0	6	17	1	0	0	5	0	0	0	1	0	0	2	1
Aguada	10,581	71	5	22	0	6	19	9																								
Aguadilla	17,830	63	5	22	2	10	21	8	0	0	0	3	0	0	0	0	0	0	7	21	3	6	0	8	1	2	1	5	1	0	0	5
Aguas Buenas	7,977	35	1	13	3	1	9	0	0	0	0	1	0	0	0	0	0	0	0	16	4	1	1	4	0	0	1	1	0	0	0	1
Añasco	13,311	93	6	64	1	23	37	8	0	0	0	9	0	0	1	0	8	0	9	0	0	1	0	2	0	0	2	10	0	0	0	51
Arecibo	36,910	171	7	62	10	35	64	9	0	0	0	2	0	0	0	0	0	0	29	62	11	11	3	23	0	0	2	0	6	0	0	0	2	20
Arroyo	4,867	17	0	5	2	3	8	2	0	0	0	6	0	0	0	0	1	0	2	0	0	0	0	1	0	1	1	1	0	0	0	1	3
Barranquitas	8,103	59	8	15	0	4	13	12	0	1	0	0	0	0	0	0	0	0	42	8	1	0	1	2	0	0	1	0	0	0	1	2
Barros	14,845	111	2	28	1	12	57	3	0	0	0	0	0	0	0	0	2	0	39	60	1	1	0	3	0	0	0	1	0	0	1	3
Barceloneta	9,357	65	0	32	0	10	25	3	0	0	0	0	0	0	0	0	0	0	1	43	5	0	0	8	0	0	2	6	0	0	0	0
Bayamon	19,940	93	4	22	0	19	41	7	0	0	0	3	0	0	0	0	7	0	18	18	2	4	2	9	1	2	0	3	0	0	0	42
Carolina	11,965	29	4	10	0	2	10	1	0	0	0	0	0	0	0	0	2	0	0	6	1	2	0	10	0	1	4	0	0	0	0	3
Caguas	19,857	110	1	0	5	20	43	10	0	0	0	6	0	0	0	0	0	0	41	25	5	0	5	13	1	1	3	2	0	0	0	8
Ciales	18,115	213	1	25	0	30	71	11	0	1	0	0	0	0	0	0	1	0	113	71	1	2	3	3	0	0	0	14	0	0	0	4
Camuy	10,887	43	0	24	1	8	16	4	0	0	0	1	0	0	0	1	0	0	2	11	3	1	1	13	0	2	3	0	0	0	0	5
Corozal	11,508	78	6	14	0	9	27	6	0	0	0	1	0	0	0	0	0	0	32	23	2	1	0	0	1	3	0	3	0	1	0	11
Cabo Rojo	16,154	37	3	37	2	9	18	3	0	0	0	2	0	0	0	0	0	0	1	9	2	1	0	6	1	1	0	1	0	1	2	10
Coamo	15,144	48	3	33	0	8	21	5	4	0	0	8	0	0	0	0	0	0	1	11	0	3	0	9	0	2	5	0	0	0	2	5
Cayey	14,442	88	4	15	11	8	21	8	0	0	0	3	0	0	0	0	0	0	3	30	4	10	11	4	0	1	2	3	0	3	0	14
Cidra	7,552	20	4	6	3	0	0	2																								
Comerio	8,249	54	5	12	4	7	16	3	0	2	0	0	0	0	0	0	0	0	0	27	3	0	2	13	0	0	0	3	0	0	0	4
Culebra	704	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Dorado	3,804	18	1	8	0	1	4	2	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0	3	0	0	3	0	1	0	1	3
Fajardo	16,782	31	3	12	1	5	14	3	0	0	0	3	0	0	0	0	0	1	1	0	6	1	2	7	0	3	1	1	0	0	0	5
Guayama	12,749	61	0	0	0	12	29	4	0	1	0	3	0	0	0	0	0	0	3	6	12	5	1	22	1	0	0	1	1	0	1	1	4
Guayanilla	9,540	51	2	28	2	11	19	4	0	0	0	9	0	0	0	0	1	0	10	15	0	0	1	1	1	0	0	0	1	1	0	3	8
Gurabo	8,700	47	0	23	0	5	20	6	0	1	0	3	0	0	0	0	0	0	8	15	0	2	0	3	0	0	0	2	0	1	1	11
Hatillo	10,449	32	3	6	0	7	16	3	0	0	0	0	0	0	0	0	0	0	16	14	0	0	0	0	0	0	0	0	0	0	0	2
Hato Grande	13,433	50	6	40	0	6	13	4	0	0	0	0	0	0	0	0	0	0	2	21	2	4	0	1	0	1	2	1	0	0	0	16
Humacao	14,313	70	9	34	0	10	27	7	0	2	0	4	0	0	0	0	0	0	4	18	2	1	1	10	0	0	3	5	0	0	2	18
Isabela	14,888	66	3	17	0	16	34	7	0	0	0	0	0	0	0	0	0	0	4	23	2	0	1	10	0	0	0	3	0	0	3	20
Juana Diaz	27,896	139	2	27	0	11	44	17	0	0	0	25	0	0	0	0	1	0	67	7	5	0	1	12	3	0	2	1	5	1	0	9
Juncos	8,429	40	1	14	0	4	12	4	1	0	0	3	0	0	0	0	0	0	1	10	5	0	0	6	0	2	4	1	0	0	0	7
Lares	20,883	176	9	60	12	26	60	20	0	0	0	0	0	0	0	0	0	0	21	100	8	1	0	21	0	1	0	10	0	0	0	14

Consolidated report of vital statistics of Porto Rico for October, November, and December, 1899—Continued.

NOVEMBER—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																						
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Las Marias	11,279	83	1	10	0	11	35	4	3	0	0	4	0	0	0	0	0	1	15	19	10	0	6	2	0	0	0	2	0	0	2	19
Lajas	8,789	29	4	23	0	8	10	4	0	1	0	0	0	0	0	0	1	0	1	2	0	0	1	2	0	0	0	5	0	0	3	13
Loiza	12,522																															
Manati	13,989	65	7	26	1	15	30	9	0	0	0	1	0	0	0	0	5	0	8	20	3	2	0	8	0	2	6	1	0	0	7	2
Morovis	11,309																															
Mayaguez	38,915	162	9	56	11	27	64	25	0	0	0	7	0	0	0	0	7	1	10	22	10	19	3	35	4	5	2	8	1	1	0	27
Maricao	8,302	84	0	14	0	16	32	3																								
Maunabo	6,221	37	1	13	0	3	13	1	0	0	0	9	0	0	0	0	0	0	2	15	0	2	0	4	0	0	0	2	0	0	2	1
Moca	12,410	80	3	10	3	10	26	8	0	0	0	1	0	0	1	0	0	0	17	38	0	1	4	2	0	0	0	0	0	0	4	12
Naguabo	10,873	49	4	5	0	5	19	5	0	0	0	2	0	0	0	0	0	0	3	14	6	2	0	9	0	0	0	5	0	0	4	4
Naranjito	8,101	35	3	3	1	3	14	1	0	0	0	0	0	0	0	0	2	0	0	15	0	1	0	3	1	2	1	1	0	0	0	9
Patillas	11,163																															
Peñuelas	12,129																															
Piedras	8,602																															
Ponce	55,477	251	13	78	12	51	105	28	0	1	0	10	0	0	1	0	0	0	7	21	10	16	1	86	3	9	6	8	0	3	3	55
Quebradillas	7,432	36	3	8	0	4	15	6																								
Rio Grande	12,365	55	2	11	0	14	28	4	0	0	0	0	0	0	0	1	0	0	3	2	3	0	2	8	0	0	1	2	0	0	0	33
Rio Piedras	13,760	51	6	9	6	5	18	10	0	1	0	1	0	0	0	0	0	0	0	19	5	7	0	10	1	0	1	0	0	0	0	6
Rincon	6,641	36	0	19	0	9	14	1	0	0	0	0	0	0	1	0	0	1	8	0	1	0	3	0	0	0	0	6	0	0	0	16
San Sebastian	16,412																															
Sabana Grande	10,560	45	5	21	1	4	18	8	0	0	0	5	0	0	0	0	0	0	3	14	3	1	1	1	3	2	1	0	0	0	1	6
San German	20,246	95	9	64	0	14	29	12	0	1	0	5	0	0	0	0	1	0	7	35	4	8	1	7	0	3	3	3	0	0	3	14
Salinas	5,731	20	4	12	0	9	14	0	0	0	0	1	0	0	0	0	0	0	2	2	0	0	0	3	0	1	2	1	0	0	0	8
San Juan	32,048	100	20	74	5	18	34	15	0	2	0	6	0	0	0	0	0	2	0	5	9	9	2	18	1	9	7	2	0	0	0	28
Santa Isabel	4,858																															
Toa Alta	7,908	26	0	9	1	4	7	3	0	0	0	7	0	0	0	0	0	0	1	3	0	2	1	5	1	0	1	1	1	0	2	1
Toa Baja	4,030	10	1	11	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	0	0	2	1	0	1	0	1
Trujillo Alto	5,683	11	2	5	0	3	6	0	0	0	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	2	0	0	0	1
Utuado	43,860	454	3	61	0	53	152	24	0	0	0	8	0	0	0	0	0	0	173	202	6	1	4	22	10	0	4	8	0	0	0	16

Vega Alta	6,107	31	3	13	0	3	13	2	0	0	0	0	0	0	0	0	0	2	0	10	12	1	2	1	0	0	0	0	0	0	3
Vega Baja	10,305	42	4	45	0	7	18	4	0	0	0	0	0	0	0	0	0	2	0	6	13	0	6	2	0	1	0	1	2	0	11
Vieques	5,938	18	6	25	0	12	13	1	0	0	0	5	0	0	0	0	0	0	0	1	0	0	2	1	5	1	0	0	3	0	0	0	0
Yabucoa	13,905																														
Yauco	27,119	220	8	67	3	34	88	13	0	4	0	16	0	0	0	0	0	0	0	31	42	23	4	4	23	6	1	3	4	0	0	0	58

DECEMBER.

Adjuntas	19,484	169	8	42	2	18	48	14	0	0	0	0	0	0	1	0	3	0	57	66	12	5	1	12	0	0	0	0	0	2	1	9
Aibonito	8,596	31	2	12	1	1	9	2	0	0	0	1	0	0	0	0	0	0	0	16	2	1	0	6	0	0	0	0	0	0	1	0	4
Aguada	10,581	49	4	33	0	7	18	3																								
Aguadilla	17,830	59	4	45	0	4	16	11	0	0	0	6	0	0	1	0	0	0	1	14	4	2	1	4	1	1	7	2	2	1	1	11
Aguas Buenas	7,977	38	1	20	0	4	13	4	0	0	0	0	0	0	0	0	1	0	0	9	8	0	2	3	0	4	4	0	3	0	0	1
Añasco	13,311	64	5	38	2	12	22	11	0	0	0	9	0	0	2	0	3	0	9	1	0	1	1	2	0	0	0	2	0	0	0	34
Arecibo	36,910	142	13	68	6	34	57	16	0	0	0	3	0	0	0	0	0	0	10	49	16	4	2	22	1	1	4	15	1	0	0	14
Arroyo	4,867	32	0	4	7	2	9	3	0	1	0	5	0	0	0	0	1	0	3	3	1	1	0	3	0	0	0	0	0	0	1	13
Barranquitas	8,103	39	1	16	0	7	13	8	0	1	0	0	0	0	0	0	1	0	18	12	0	0	0	1	0	0	1	1	0	0	2	2
Barros	14,845	91	5	22	0	8	31	7	0	1	0	0	0	0	0	0	1	0	18	31	3	1	0	2	0	0	0	2	0	0	0	2
Barceloneta	9,357	60	1	15	0	9	20	4	0	0	0	0	0	0	0	0	0	0	3	34	4	0	3	11	0	0	3	2	0	0	0	0
Bayamón	19,940	98	6	26	0	15	40	10	0	0	0	1	0	0	0	0	4	1	9	23	2	0	3	10	2	1	5	10	0	0	0	27
Carolina	11,965	31	8	11	0	4	10	4	0	0	0	0	0	0	0	0	1	0	0	4	1	4	1	11	0	0	3	0	0	1	2	3
Caguas	19,887	84	2	0	1	14	31	7	0	0	0	4	0	0	0	0	1	0	18	27	5	0	4	9	0	1	1	2	0	1	1	10
Ciales	18,115	121	6	35	1	12	35	4	0	1	0	0	0	0	0	0	5	0	53	46	4	0	0	1	0	0	0	3	0	0	1	7
Camuy	10,887	21	1	16	0	0	3	4	0	0	0	1	0	0	0	0	0	0	0	5	2	2	0	4	0	0	2	0	0	1	0	4
Corozal	11,508	56	6	10	0	8	21	7	0	0	0	1	0	0	0	0	1	0	24	12	2	0	2	0	1	0	0	0	1	0	1	11
Cabo Rojo	16,154	49	4	39	1	7	19	7	0	0	0	4	0	0	0	0	0	0	0	13	5	0	1	4	1	2	3	0	0	0	2	12
Coamo	15,144	33	3	28	0	5	13	5	1	0	0	12	0	0	0	0	0	0	2	2	1	3	1	1	1	1	3	0	0	0	0	5
Cayey	14,442	58	2	16	6	6	11	7	0	0	0	2	0	0	0	0	0	0	1	23	6	5	9	6	0	1	2	0	0	1	0	2
Cidra	7,552	19	5	16	1	1	5	0																								
Comerío	8,249	60	1	18	4	10	17	1	0	2	0	1	0	0	0	0	0	0	1	24	5	1	0	6	0	1	2	0	0	0	0	7
Culebra	704	2	0	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Dorado	3,804	12	2	11	0	2	4	5	0	0	0	3	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0	4	1
Fajardo	16,782	40	8	14	6	6	18	3	0	0	0	4	0	0	0	1	0	0	0	5	7	2	1	10	0	1	1	1	1	0	0	5
Guayama	12,749	62	0	0	0	11	29	6	0	0	0	4	0	0	0	0	0	0	0	10	5	2	3	28	1	1	0	1	1	0	0	7
Guayanilla	9,540	52	2	22	2	9	20	5	0	0	0	13	0	0	0	0	2	0	8	16	0	1	0	3	0	2	0	1	0	0	2	4
Gurabo	8,700	27	8	18	2	6	15	5	0	0	0	1	0	0	0	0	0	0	0	10	1	0	1	3	0	0	2	3	0	0	1	5
Hatillo	10,449	32	2	6	0	2	5	5	0	0	0	0	0	0	0	0	0	0	9	16	1	2	1	0	0	0	0	0	0	0	0	3
Hato Grande	13,433	59	5	33	0	7	19	9	0	0	0	6	0	0	0	0	0	0	6	23	1	4	1	3	0	0	4	1	0	0	0	10
Humacao	14,313	91	3	20	0	11	27	12	0	7	0	10	0	0	0	0	0	0	7	29	3	4	4	3	0	0	3	5	0	0	0	20
Isabela	14,888	53	2	14	0	8	23	10	0	0	0	0	0	0	0	0	0	0	3	25	0	1	1	1	0	0	1	4	0	0	4	13
Juana Díaz	27,896	84	7	40	0	9	15	15	0	0	0	26	0	0	0	0	0	0	24	6	2	0	2	9	7	0	0	3	0	0	1	4
Juncos	8,429	37	2	19	0	1	9	1	0	0	0	0	0	0	0	1	0	0	4	14	0	1	1	6	0	2	0	0	0	0	0	8
Lares	20,883	133	12	67	2	19	49	10	0	0	0	0	0	0	0	0	1	0	9	68	6	1	0	29	0	3	1	3	0	0	0	12
Las Marías	11,279	69	1	13	9	5	35	3	0	0	0	1	0	0	0	0	1	2	9	14	11	2	1	0	0	0	6	3	0	0	2	20
Lajas	8,789	30	6	41	0	7	15	2	0	0	0	0	0	0	0	0	1	0	2	8	0	0	1	2	0	0	3	3	0	0	0	10
Loíza	12,522																														
Manatí	13,989	56	5	20	5	17	35	3	0	0	0	8	0	0	0	0	8	0	4	12	3	4	0	8	0	1	1	0	0	0	1	11
Morovis	11,309																														
Mayagüez	38,915	202	12	83	12	30	71	24	0	0	0	30	0	0	0	0	0	0	15	29	22	14	2	46	2	7	0	6	0	0	0	27

Consolidated report of vital statistics of Porto Rico for October, November, and December, 1899—Continued.

DECEMBER—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																						
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Maricao	8,312	79	0	22	0	12	23	10	0	0	0	0	0	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	1	0	1
Maunabo	6,221	40	0	12	0	5	24	2	0	0	0	21	0	0	0	0	0	0	1	7	0	0	0	2	0	0	3	0	0	0	6
Moca	12,410	45	3	7	0	3	13	7	0	0	0	0	0	0	1	0	0	0	1	18	0	0	2	1	0	0	2	0	1	4	15
Naguabo	10,873	53	1	3	0	3	14	7	0	0	0	2	0	0	0	0	0	0	2	20	5	5	0	7	0	0	1	0	0	6	5
Naranjito	8,101	32	6	7	3	3	8	3	0	0	0	0	0	0	0	0	0	0	0	11	1	1	0	8	0	1	1	0	0	1	8
Patillas	11,163																														
Peñuelas	12,129																														
Piedras	8,602																														
Ponce	55,477	273	28	82	27	28	86	42	1	0	0	15	0	0	0	0	0	0	11	37	9	26	2	99	1	4	7	3	1	3	1	53
Quebradillas	7,432	26	4	5	0	5	11	4																							
Rio Grande	12,365	51	7	12	0	10	24	7	0	0	0	0	0	0	0	0	0	0	7	12	0	1	0	7	0	0	1	1	0	0	0	22
Rio Piedras	13,760	32	5	7	2	3	4	6	0	1	0	1	0	0	0	0	1	0	0	18	1	0	0	4	0	1	0	0	1	0	0	4
Rincon	6,641	20	5	19	0	3	5	2	0	1	0	0	0	0	0	0	0	0	3	2	0	2	2	0	0	0	0	1	0	0	0	9
San Sebastian	16,412																														
Sabana Grande	10,560	44	4	42	3	11	18	7	0	0	0	6	0	0	0	0	0	0	2	15	5	0	0	3	0	0	1	4	0	0	0	8
San German	20,246	84	14	57	0	9	15	13	0	0	0	2	0	0	0	0	1	1	2	39	4	7	1	11	1	0	1	0	0	0	4	10
Salinas	5,731	30	1	5	2	8	12	7	0	1	0	12	0	0	0	0	0	0	2	1	0	2	0	1	1	2	4	0	0	0	0	4
San Juan	32,048	85	19	85	9	15	25	9	0	0	0	5	0	0	0	0	0	0	3	4	13	8	0	8	1	3	11	3	3	3	1	19
Santa Isabel	4,858																														
Toa Alta	7,908	24	0	9	1	0	4	3	0	0	0	12	0	0	0	0	0	0	1	4	0	4	0	2	0	0	1	0	0	0	0	0
Toa Baja	4,030	11	0	6	0	4	5	1	0	0	0	0	0	0	0	0	0	0	0	1	9	3	0	1	0	0	2	2	0	0	1	0
Trujillo Alto	5,683	14	4	13	0	4	4	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	9
Utuado	43,860	318	10	91	0	40	95	21	0	0	0	6	0	0	0	0	0	0	126	120	4	4	0	16	4	0	1	6	1	4	0	26
Vega Alta	6,107	18	2	9	3	2	8	3	0	0	0	1	0	0	0	0	2	0	6	4	0	0	1	0	0	0	0	0	0	0	0	4
Vega Baja	10,305	48	2	30	0	7	14	5	0	0	0	1	0	0	0	0	0	0	5	19	3	0	0	3	1	0	1	3	1	0	0	11
Vieques	5,938	13	2	26	1	2	2	0	0	0	0	0	0	0	0	0	0	0	4	2	0	4	0	0	0	0	1	0	1	0	0	1
Yabucoa	13,905																														
Yauco	27,119	185	3	104	4	46	81	12	0	1	0	16	0	0	0	0	0	0	10	31	25	3	11	29	6	1	0	6	0	1	3	42

Consolidated report of vital statistics of Porto Rico for January, February, March, and April, 1900.

JANUARY.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Still births.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																						
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Adjuntas	19,484	123	7	50	0	14	56	9	0	0	0	0	0	0	2	0	1	0	30	40	13	4	0	12	0	0	1	1	0	0	5	14
Aibonito	8,596	51	4	23	0	8	13	8	0	0	0	3	0	0	0	0	0	0	3	20	5	2	1	5	0	0	0	3	0	0	0	6
Aguada	10,581	31	4	19	0	3	10	5																								
Aguadilla	17,830	41	6	44	0	6	14	5	0	0	0	0	0	0	0	0	1	0	1	6	6	3	0	5	1	2	2	3	0	1	0	10
Aguas Buenas	7,977	28	1	12	0	77	13	1	0	0	0	0	0	0	0	0	1	0	1	14	3	0	0	2	0	0	0	0	0	1	0	6
Añasco	13,311	66	5	44	2	10	21	12	0	0	0	9	0	0	0	0	4	0	6	4	0	4	1	6	0	0	0	1	1	2	0	28
Arecibo	36,910	99	9	75	9	14	37	5	0	1	0	3	0	0	0	0	1	0	2	38	12	4	2	9	0	3	4	1	0	0	3	12
Arroyo	4,868	14	4	6	0	4	5	2	0	0	0	5	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	2	4
Barranquitas	8,103	22	1	8	0	4	7	7	0	0	0	1	0	0	0	0	1	0	3	9	3	0	0	1	0	0	2	1	0	0	0	2
Barros	14,445	46	1	20	0	5	10	10	0	0	0	0	0	0	0	0	0	0	16	25	0	1	0	0	0	0	0	0	0	0	2	1
Barceloneta	9,357	35	1	18	1	6	15	2	0	0	0	0	0	0	0	0	0	0	1	15	3	0	2	7	0	0	2	4	0	0	0	1
Bayamón	19,940	72	2	16	1	20	32	9	0	2	0	4	0	0	3	0	0	0	6	10	2	8	1	3	1	2	4	6	3	0	0	17
Carolina	11,965	32	7	6	0	4	11	6	0	0	0	0	0	0	0	0	2	0	0	4	2	7	0	3	9	0	1	2	0	1	0	3
Caguas	19,857	66	0	1	0	11	19	6	0	0	0	9	0	0	0	0	0	0	8	26	4	0	3	7	1	1	3	2	1	2	0	2
Ciales	18,115	73	0	13	3	10	24	6	0	0	0	1	0	0	0	0	2	0	21	36	2	0	1	1	0	1	0	1	5	0	0	4
Camuy	10,887	27	3	18	0	3	9	7	0	0	0	0	0	0	0	0	0	0	0	3	5	1	0	4	0	2	2	1	2	0	0	10
Corozal	11,508	40	1	13	0	6	12	5	0	1	0	0	0	0	0	0	4	0	8	18	0	0	0	0	0	2	1	2	0	0	0	4
Cabo Rojo	16,154	41	14	59	1	8	13	3	0	0	0	6	0	0	1	0	0	0	1	9	5	3	0	6	0	1	2	1	0	0	0	9
Coamo	15,144	39	1	24	3	3	9	4	0	0	0	6	0	0	0	0	0	0	1	8	3	2	0	12	0	0	2	0	0	0	0	4
Cayey	14,442	56	10	30	2	8	17	5	0	0	0	4	0	0	0	0	1	0	1	23	4	3	6	2	0	1	0	1	0	0	1	9
Cidra	7,552	15	2	7	0	0	2	0																								
Comerío	8,249	25	1	31	4	6	8	0	0	0	0	1	0	0	0	0	0	0	0	11	4	0	0	1	0	2	1	1	1	0	0	3
Culebra	704	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Dorado	3,814	5	1	8	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	0	1
Fajardo	16,782	59	3	23	5	12	27	4	0	0	0	1	0	0	0	0	0	1	6	6	9	1	0	15	0	1	2	3	2	2	0	10
Guayama	12,749	61	4	32	0	5	22	6	0	0	0	11	0	0	0	0	0	0	2	10	3	2	3	22	1	1	0	1	0	0	1	4
Guayanilla	9,540	47	1	22	0	8	16	6	0	0	0	15	0	0	0	0	0	0	1	16	0	1	0	9	0	0	0	0	0	0	3	2
Gurabo	8,700	25	3	9	1	3	9	1	0	1	0	4	0	0	0	0	0	0	0	10	2	0	2	1	0	0	2	2	0	0	0	1
Hatillo	10,449	34	0	50	0	2	8	4	0	0	0	0	0	0	0	0	0	0	5	10	4	0	0	1	0	0	1	0	0	0	0	3

Consolidated report of vital statistics of Porto Rico for January, February, March, and April, 1900—Continued.

JANUARY—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																					
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Hato Grande	13,433	48	4	18	0	3	14	2	0	0	0	4	0	0	0	0	0	0	5	33	0	1	1	0	0	0	1	2	0	0	0	1
Humacao	14,313	73	5	24	0	16	30	6	1	0	0	8	0	0	0	0	0	0	6	20	4	0	4	3	0	0	0	8	2	1	0	16
Isabela	14,888	41	0	11	0	7	15	7	0	0	0	1	0	0	0	0	0	0	0	18	1	2	0	0	0	0	1	2	0	1	3	13
Juana Diaz	27,896	89	5	54	1	11	30	10	0	0	0	29	0	0	0	0	1	0	5	16	2	0	0	11	3	2	3	8	0	1	0	7
Juncos	8,429	38	3	14	0	1	8	1	0	1	0	4	0	0	0	0	0	0	1	17	1	3	0	5	1	1	0	2	0	0	0	3
Lares	20,883	83	6	35	3	9	22	11	2	0	0	0	0	0	0	0	0	0	3	44	6	3	3	7	1	2	1	2	0	1	0	8
Las Marias	11,279	45	2	17	9	2	16	3	1	0	0	0	0	0	0	0	0	2	10	12	8	1	2	0	0	0	0	0	0	1	1	5
Lajas	8,789	34	2	26	0	7	13	6	0	0	0	0	0	0	0	0	1	0	1	8	2	0	0	1	0	0	0	3	3	0	1	18
Loiza	12,522	17	0	2	0	6	8	2	0	2	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	4	3	0	0	1	3
Manati	13,989	36	2	18	1	8	17	1	0	0	0	3	0	0	1	0	4	0	2	6	3	5	0	2	0	0	0	3	0	0	0	5
Morovis	11,309	33	2	22	0	4	8	4	0	0	0	3	0	0	0	0	0	0	2	15	2	0	1	2	0	1	4	0	0	0	0	3
Mayagüez	38,915	159	14	88	7	28	57	22	0	0	0	7	0	0	0	0	4	0	7	30	11	0	1	28	1	5	8	6	4	2	0	45
Maricao	8,312	51	0	23	0	6	20	0	0	1	0	0	0	0	0	0	0	1	1	48	0	0	0	0	0	0	0	0	0	0	0	0
Maunabo	6,221	28	1	8	0	3	8	2	0	0	0	17	0	0	0	0	0	0	0	5	0	0	1	2	0	0	0	0	0	0	1	2
Moca	12,410	28	1	13	5	7	11	0	0	0	0	0	0	0	0	0	0	0	1	12	0	0	1	0	0	0	1	0	0	0	0	13
Naguabo	10,873	50	1	8	3	6	14	6	0	0	0	8	0	0	0	0	0	0	1	23	1	3	0	8	0	0	0	1	0	0	5	1
Naranjito	8,101	14	0	2	3	1	4	2																								
Patillas	11,163	61	1	10	0	9	26	7	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	1	0	0	0	4	0	0	4	38
Peñuelas	12,129	43	4	43	0	4	15	7	0	0	0	3	0	0	0	0	0	0	0	6	5	0	0	4	0	1	1	0	0	0	2	21
Piedras	8,602																															
Ponce	55,477	202	41	94	15	26	56	33	0	2	0	9	0	0	0	0	0	2	5	9	14	21	5	70	3	6	17	2	1	0	5	3
Quebradillas	7,432	20	0	9	0	2	11	1																								
Rio Grande	12,365	50	1	18	0	6	29	5	0	0	0	12	0	0	0	0	0	0	1	5	1	0	0	15	0	1	0	0	0	0	5	10
Rio Piedras	13,760	32	2	8	5	5	10	1	0	0	0	1	0	0	0	0	0	0	0	15	5	0	1	6	0	0	0	1	0	0	0	4
Rincon	6,641	16	3	15	0	3	5	0	0	1	0	0	0	0	0	0	0	0	1	5	2	2	0	0	0	0	0	1	0	0	0	4
San Sebastian	16,412	46	3	22	5	4	8	7	0	0	0	0	0	0	0	0	0	0	4	20	4	2	4	3	1	2	2	1	0	0	0	3
Sabana Grande	10,560	30	1	25	1	4	9	3	0	1	0	5	0	0	0	0	0	0	1	7	2	2	1	1	0	1	4	1	0	1	1	2
San German	20,246	68	4	57	0	14	24	9	0	0	0	0	0	0	0	0	0	0	1	25	7	3	1	7	0	1	1	7	0	0	1	14
Salinas	5,731	21	3	1	0	5	9	3	0	0	0	1	0	0	0	0	0	0	2	1	0	0	0	1	0	0	1	2	0	0	0	13

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Consolidated report of vital statistics of Porto Rico for January, February, March, and April, 1900—Continued.

FEBRUARY—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																					
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Las Marias	11,279	29	2	18	3	0	7	3	0	0	0	0	0	0	0	0	0	1	4	8	3	4	0	0	0	0	1	0	0	0	2	6
Lajas	8,789	18	5	31	0	3	5	4	0	0	0	0	0	0	0	1	0	0	0	2	0	4	0	0	2	2	1	0	1	0	5	5
Loiza	12,522	14	1	0	0	3	5	5	1	2	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	1	2	0	0	2	2	4
Manatí	13,989	49	8	30	4	15	20	6	0	0	0	4	0	0	0	0	1	0	0	11	4	4	1	9	0	2	1	6	0	1	1	4
Morovis	17,309	24	4	20	0	2	5	4	0	0	0	0	0	0	0	0	0	0	1	9	2	2	1	0	0	0	2	0	0	4	3	
Mayaguez	38,915	122	12	65	5	16	42	22	0	0	0	5	0	0	0	0	3	0	9	18	6	15	1	30	1	7	1	0	0	1	0	25
Maricao	8,312	40	2	23	0	5	19	1	0	1																						
Maunabo	6,221	23	1	12	0	2	7	3	0	0	0	14	0	0	0	0	0	0	0	2	1	0	0	1	0	0	0	1	0	0	0	4
Moca	12,410	19	6	13	0	4	7	3	0	0	0	0	0	6	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	2	9
Naguabo	10,873	26	2	11	1	2	5	4	0	0	0	1	0	0	0	0	0	0	0	13	0	0	0	1	0	0	1	1	0	0	3	6
Naranjito	8,101	19	1	11	2	1	5	3																								
Patillas	11,163	34	3	14	0	2	8	4	0	0	0	0	0	0	0	2	0	0	0	5	0	4	0	0	0	0	4	1	0	0	0	18
Penuelas	12,129	43	2	39	4	3	17	7	0	0	0	3	0	0	0	0	0	0	0	6	5	0	0	4	0	2	1	0	0	0	3	19
Piedras	8,602																															
Ponce	55,477	175	24	137	19	17	40	30	0	0	0	6	0	0	0	2	0	0	0	17	5	19	9	43	2	10	5	4	2	6	3	42
Quebradillas	7,432	14	3	3	0	3	5	1																								
Rio Grande	12,365	39	14	7	0	8	19	3	0	0	0	7	0	0	0	0	0	0	0	0	5	0	0	9	0	1	0	1	0	0	0	16
Rio Piedras	13,760	33	2	8	1	5	12	8	0	0	0	2	0	0	0	0	0	0	0	9	2	1	0	11	1	0	0	0	0	0	0	7
Rincon	6,641	21	3	22	0	4	6	1	0	0	0	0	0	0	0	0	0	0	0	7	1	0	1	0	0	0	2	0	0	0	0	10
San Sebastian	16,412	26	7	22	0	1	9	3	0	0	0	0	0	0	0	0	0	0	0	11	0	2	1	2	0	1	4	0	0	0	0	5
Sabana Grande	10,560	26	9	82	2	10	14	0	0	1	0	3	0	0	0	0	0	0	1	6	4	1	1	2	0	1	4	1	0	0	0	1
San German	20,246	84	6	47	0	5	7	13	0	0	0	1	0	0	0	0	0	0	0	3	12	2	3	1	1	0	0	5	0	0	1	5
Salinas	5,731	28	1	4	0	2	7	5	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	3	0	0	0	0	2	0	18
San Juan	32,048	89	20	81	5	19	27	15	0	2	0	3	0	0	0	0	0	0	1	4	6	11	2	15	2	6	7	3	3	2	1	21
Santa Isabel	4,858	8	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	5	0	0	1	0	0	1	0	0
Toa Alta	7,908	21	0	7	0	2	0	3	0	0	0	6	0	0	0	0	0	0	0	2	4	0	1	0	4	0	0	1	0	0	1	1
Toa Baja	4,030	5	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0
Trujillo Alto	5,683	4	2	6	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	1
Utuado	43,860	133	10	68	0	20	50	5	0	3	0	8	0	0	1	0	0	0	22	39	10	6	1	10	3	5	2	5	0	1	2	15

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Consolidated report of vital statistics of Porto Rico for January, February, March, and April, 1900—Continued.

MARCH—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																					
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Maricao	8,312	27	2	12	1	6	15	1	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	8	0	1	0	7	0	0	0	0
Maunabo	6,221	26	5	7	0	1	3	2	0	1	0	10	0	0	0	0	0	0	1	8	1	0	0	0	0	0	0	0	1	0	0	4
Moca	12,410	16	4	5	0	1	3	1	0	0	0	1	0	0	0	0	0	0	0	9	1	1	0	0	0	0	1	0	0	0	0	3
Naguabo	10,873	31	8	20	5	6	10	2	0	2	0	1	0	0	0	0	0	0	1	9	2	2	0	2	0	1	0	3	0	0	0	8
Naranjito	8,101	17	2	7	0	0	5	1																								
Patillas	11,163	46	2	11	0	9	19	1	0	0	0	24	0	0	0	0	0	0	0	7	1	1	2	5	0	0	0	2	0	0	0	4
Penuelas	12,129	24	2	44	0	4	9	2	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	1	14
Piedras	8,602																															
Ponce	55,477	226	34	114	24	41	72	33	0	2	0	20	0	0	1	0	0	0	2	20	13	29	6	59	4	8	10	6	0	4	7	35
Quebradillas	7,432	7	2	9	0	0	1	3																								
Rio Grande	12,365																															
Rio Piedras	13,760	43	6	10	1	9	20	10	0	0	0	2	0	0	0	0	0	0	0	7	10	1	0	10	0	4	2	0	0	0	0	7
Rincon	6,641	16	7	19	0	3	5	0	0	0	0	7	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	1	0	0	0	4
San Sebastian	16,412	27	9	20	0	2	6	3	0	0	0	0	0	0	0	0	0	0	0	11	2	0	2	5	0	3	2	6	0	0	0	2
Sabana Grande	10,560	34	2	46	0	8	17	4	0	0	0	6	0	0	0	0	0	0	0	8	0	1	1	1	0	2	2	6	0	0	1	6
San German	20,246	40	6	52	0	5	7	10	0	0	0	4	0	2	0	0	0	0	0	12	0	0	1	4	2	1	1	4	0	0	1	8
Salinas	5,731	18	1	10	1	4	7	1	0	0	0	8	0	0	0	0	0	0	0	2	0	0	0	6	0	0	0	0	0	0	0	2
San Juan	32,048	123	22	75	6	21	34	22	0	2	0	9	0	0	1	0	0	0	0	5	17	12	0	25	7	13	8	1	0	0	0	23
Santa Isabel	4,858	14	0	13	2	2	6	0	0	0	0	1	0	0	0	0	0	0	0	1	3	0	0	4	0	0	2	0	0	0	0	3
Toa Alta	7,908	30	0	9	0	3	13	6	0	0	0	8	0	0	0	1	0	1	0	4	3	8	0	2	0	0	0	0	1	1	0	0
Toa Baja	4,030																															
Trujillo Alto	5,683	9	1	7	0	1	3	4	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	3	1
Utuado	43,860	133	8	74	0	28	57	13	0	1	0	4	0	0	0	0	2	0	24	51	9	4	0	8	0	1	1	18	0	1	1	8
Vega Alta	6,107	10	1	12	0	0	1	2	0	0	0	3	0	0	0	0	0	0	2	4	0	0	0	0	0	1	0	0	0	0	0	0
Vega Baja	10,305	31	3	18	0	4	9	5	0	0	0	2	0	0	0	0	0	0	0	13	1	0	2	3	0	0	1	2	2	1	0	4
Vieques	5,938	15	5	27	1	4	6	2	0	0	0	0	0	0	0	0	0	0	6	0	2	1	1	2	0	0	1	0	1	0	0	1
Yabucoa	13,905	27	4	18	1	3	7	7	0	0	0	8	0	0	0	1	0	0	0	4	2	1	0	0	0	2	0	1	0	0	0	8
Yauco	27,119	92	7	75	0	19	28	7	0	0	0	3	0	0	0	0	0	0	2	24	6	4	3	10	2	3	2	3	1	1	1	27

Adjuntas	19,484	84	2	24	2	4	15	8	0	0	0	2	0	4	2	0	0	0	0	10	54	5	0	0	4	0	0	0	0	0	0	1	6
Aibonito	8,596	21	3	10	0	3	6	0	0	0	0	2	0	0	0	0	0	0	0	0	11	2	0	0	0	0	0	1	1	0	1	0	3
Aguada	10,581																																			
Aguadilla	17,830	40	5	22	2	13	16	10	0	0	0	0	0	0	0	0	0	0	0	0	3	11	1	0	3	1	1	2	6	1	1	1	9
Aguas Buenas	7,977	21	1	21	0	7	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11	2	1	0	0	0	0	1	1	0	2	1	2
Anasco	13,311	64	6	29	0	5	10	16	0	0	0	18	0	0	1	0	4	0	0	0	15	3	6	0	4	0	0	0	3	0	0	0	10
Arecibo	36,910	72	8	81	4	16	33	6	0	0	0	1	0	0	0	0	3	0	2	19	9	2	3	7	0	3	1	10	1	0	0	0	11
Arroyo	4,867	16	3	15	0	3	6	1	0	0	0	3	0	0	0	0	0	0	1	2	0	3	0	5	0	0	0	0	1	0	0	0	1
Barranquitas	8,103	14	4	14	0	1	1	3	0	2	0	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0	0	0	1	0	0	0	1
Barros	14,845	19	0	13	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	3	10	0	1	1	0	0	0	1	0	0	0	1	1
Barceloneta	9,357																																			
Bayamon	19,940																																			
Carolina	11,965	23	4	25	0	1	6	5	0	0	0	2	0	0	0	0	0	0	0	0	4	2	2	1	1	0	0	1	0	0	0	2	8
Caguas	19,887	52	0	53	1	8	18	4	0	0	0	3	0	0	0	0	0	1	0	23	1	3	3	3	0	2	1	0	0	1	0	11
Ciales	18,118	36	2	20	2	4	13	4	0	0	0	1	0	0	1	0	1	0	0	19	3	1	0	1	0	0	1	3	0	0	0	0	5
Camuy	10,887	13	2	27	0	2	4	2	0	0	0	0	0	0	0	0	0	0	0	2	3	1	1	0	0	0	0	1	1	0	0	1	3
Corozal	11,501	24	2	24	0	4	8	2	0	0	0	2	0	0	0	0	0	0	1	2	1	0	2	2	0	1	0	1	0	0	0	0	8
Cabo Rojo	10,184	41	9	68	0	4	10	11	0	0	0	4	0	0	0	0	0	0	0	4	10	0	3	1	0	1	4	1	0	0	1	0	12
Coamo	15,144	30	0	42	4	8	13	5	0	0	0	5	0	0	0	0	0	0	1	5	6	0	0	3	0	3	2	1	0	0	0	0	4
Cayey	14,442	40	2	36	5	6	10	2	0	0	0	2	0	0	0	0	0	0	0	18	7	2	1	3	0	1	2	1	0	0	2	0	1
Cidra	7,552	4	1	13	4	4	5	1	0	0	0	0	0	0	0	0	0	0	1	5	1	1	1	1	0	0	0	1	0	0	0	0	0
Comerio	8,249	18	2	24	0	3	6	1	0	1	0	0	0	0	0	0	0	0	0	11	4	0	0	0	0	0	0	0	0	0	0	1	1
Culebra	704	3	0	3	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Dorado	3,804	10	0	5	0	1	2	1	0	1	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
Fajardo	10,782	45	7	40	1	9	19	2	0	1	0	3	0	0	0	0	0	0	0	3	1	7	1	1	11	0	3	1	3	0	0	1	9
Guayama	12,749	49	8	29	2	10	17	4	0	0	0	7	0	0	0	0	0	0	1	9	8	6	3	9	2	0	1	2	1	0	0	0	2
Guayanilla	9,540	55	1	22	1	9	16	3	0	0	0	10	0	0	0	0	0	0	2	19	1	1	2	5	0	3	2	2	0	0	2	1	5
Gurabo	8,700	12	7	24	0	0	3	1	0	0	0	4	0	0	0	0	0	0	1	4	1	2	0	0	0	0	0	0	0	0	0	0	0
Hatillo	10,449	14	3	10	0	2	5	2	0	0	0	0	0	0	0	0	0	0	2	9	0	0	0	0	0	0	0	1	0	0	0	0	2
Hato Grande	13,433	24	7	28	0	4	6	2	0	0	0	2	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	1	0	0	0	0	3
Humacao	14,313	56	9	62	2	2	15	5	0	0	0	2	0	0	0	0	0	0	0	21	0	7	2	6	0	1	0	2	0	1	0	14
Isabela	14,888	27	1	18	0	5	9	10	0	0	0	0	0	0	0	0	0	0	0	9	1	1	0	0	0	0	0	2	0	0	5	0	9
Juana Diaz	27,896	67	4	45	3	8	22	8	0	5	0	10	0	0	0	0	0	0	6	11	7	7	0	1	0	0	1	3	0	2	10	4
Juncos	8,429	26	4	14	0	1	5	2	0	0	0	1	0	0	0	0	0	0	0	12	0	2	0	1	0	2	0	0	0	0	1	7
Lares	20,883	66	7	44	0	11	19	6	0	0	0	3	0	0	0	0	0	0	0	33	4	0	1	8	0	2	0	5	0	1	0	9
Las Marias	11,279	33	2	5	0	7	11	3	0	0	0	0	0	0	0	0	0	0	3	11	2	1	3	0	0	0	1	0	0	0	1	11
Lajas	8,789	13	9	33	0	3	6	1	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	1	0	0	2	0	0	0	0	2
Loiza	12,522	4	2	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
Manati	13,989	41	19	33	0	7	14	4	0	1	0	0	0	0	0	0	3	0	1	13	5	0	1	2	0	1	5	2	1	0	3	3
Morovis	11,309	22	1	15	0	3	8	4	0	0	0	3	0	0	0	0	0	0	0	4	5	1	0	2	0	0	1	2	0	1	2	1
Mayaguez	38,915	180	20	62	7	31	56	39	0	0	0	19	0	0	0	0	5	0	16	26	15	17	0	18	0	7	7	6	1	0	0	43
Maricao	8,312	37	0	9	0	3	10	0																												
Maunabo	6,221	20	3	8	0	5	10	1	0	2	0	13	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	2
Moca	12,410	27	3	7	0	2	5	6	0	0	0	1	0	0	0	0	0	0	0	10	0	0	1	0	0	0	0	0	0	2	4	9
Naguabo	10,873	22	1	4	1	2	4	1	0	0	0	9	0	0	0	0	0	0	0	6	2	0	1	1	0	0	0	2	1	0	0	0
Naranjito	8,101	14	1	8	1	1	5	0																												
Patillas	11,163	34	4	12	0	6	13	2	0	0	0	11	0	0	0	0	0	0	0	12	1	2	0	2	0	0	0	1	0	1	1	2
Penuelas	12,129	50	2	22	0	9	19	3	0	0	0	1	0	0	0	0	0	0	0	15	0	1	0	1	0	0	0	1	0	0	0	31
Piedras	8,602																																			

Consolidated report of vital statistics of Porto Rico for January, February, March, and April, 1900—Continued.

APRIL—Continued.

	Population, 1899.	Total deaths.	Total marriages.	Total births.	Stillbirths.	Under 1 year.	Under 5 years.	Over 60 years.	Deaths from important causes.																						
									Cerebro-spinal meningitis.	Typhoid fever.	Yellow fever.	Malarial diseases.	Smallpox.	Scarlet fever.	Measles.	Erysipelas.	Whooping cough.	Croup and diphtheria.	Dysentery.	Anæmia.	Acute respiratory diseases.	Consumption.	Puerperal diseases.	Digestive system.	Urinary system.	Circulatory system.	Nervous system.	Tetanus.	Cancer.	Accidents and violence.	Old age.	Unclassified.
Ponce	55,477	310	18	98	25	38	70	44	0	0	0	9	0	0	0	0	0	0	9	30	30	14	6	103	1	12	13	2	0	8	6	67
Quebradillas	7,432	20	2	5	0	1	2	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
Rio Grande	12,365	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rio Piedras	13,760	21	5	8	3	3	7	5	0	1	0	2	0	0	0	0	0	0	0	7	2	1	0	4	0	1	0	0	0	0	0	3
Rincon	6,641	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
San Sebastian	16,412	21	4	20	0	0	2	4	0	0	0	0	0	0	0	0	0	0	1	7	3	3	0	1	0	4	1	0	0	0	0	1
Sabana Grande	10,560	29	3	26	0	4	10	1	0	0	0	7	0	0	0	0	1	0	0	8	0	5	0	0	0	0	1	1	0	0	1	5
San German	20,246	50	9	46	5	4	12	8	0	0	0	7	0	0	0	0	0	0	4	16	3	3	1	5	0	2	2	1	0	1	0	5
Salinas	5,731	24	5	7	1	7	12	1	1	0	0	15	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	2	0	0	0	1
San Juan	32,048	97	21	68	4	19	33	14	0	2	0	6	0	0	1	1	0	0	0	4	7	9	0	24	3	8	3	3	4	0	2	20
Santa Isabel	4,858	9	5	15	1	3	3	0	0	0	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	3
Toa Alta	7,908	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Toa Baja	4,030	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trujillo Alto	5,683	6	2	4	0	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Utuado	43,860	153	10	57	0	25	48	13	1	1	0	11	0	0	0	0	3	0	20	48	13	7	1	11	4	2	7	10	0	1	4	9
Vega Alta	6,107	10	2	7	0	1	3	1	0	0	0	2	0	0	0	0	0	0	0	2	0	3	0	1	0	0	0	0	0	0	0	2
Vega Baja	10,305	16	7	16	0	0	3	2	0	0	0	5	0	0	0	0	0	0	0	3	1	0	0	3	0	1	0	0	0	1	0	2
Vieques	5,938	15	4	17	1	6	6	1	0	0	0	0	0	0	0	0	0	0	3	0	3	2	0	2	0	0	2	2	0	0	0	1
Yabucoa	13,905	21	5	9	0	3	6	4	0	0	0	1	0	0	0	0	0	0	0	9	0	0	0	0	0	0	1	1	0	0	0	9
Yauco	27,119	101	6	55	2	23	34	15	0	1	0	14	0	0	0	0	0	0	3	23	6	4	1	11	4	1	2	3	1	2	2	13

Birth returns during the seven months ending April 30, 1900, show the following (premature and still births are not included):

Month.	Legitimate.		Illegitimate.	
	Male.	Female.	Male.	Female.
October	429	384	307	290
November	431	413	292	316
December	474	389	336	378
January	478	425	400	367
February	540	481	441	441
March	522	477	458	475
April	437	378	359	357

The number of stillbirths was 746.

The preceding table, aggregated for the seven months, results as follows:

Class.	Male.	Female.	Total.
Legitimate	3,311	2,947	6,258
Illegitimate	2,593	2,624	5,217
Total	5,904	5,571	11,475

There were 2,024 marriages reported during this period.

The relation of births to deaths and of illegitimate to legitimate births is herewith shown:

Month.	Total deaths.	Total births.	Per cent of total births to total deaths.	Per cent of illegitimate to total births.
October	4,581	1,410	30.7	42.3
November	4,674	1,452	31.0	41.8
December	3,967	1,577	39.7	45.2
January	3,297	1,670	50.6	45.8
February	2,475	1,903	76.8	46.3
March	2,524	1,932	76.5	48.2
April	2,418	1,531	63.3	46.7
Total	23,936	11,475	47.9	45.4

Reports, especially of births, have been very inaccurate. Existing conditions are responsible for this inaccuracy. This table shows that the births were but 50 per cent of the deaths, when, as a matter of fact, births, without doubt, exceed the deaths. The per cent of illegitimate to total births is probably greater than reported.

The following table shows the number of deaths, births, and marriages in each municipality for the years from 1888 to 1898, inclusive:

Town.	Births.			Deaths.			Total marriages.
	Male.	Female.	Total.	Male.	Female.	Total.	
Adjuntas	3,978	3,755	7,733	3,237	2,911	6,148	1,054
Aguada	2,148	2,142	4,290	2,051	1,780	4,051	711
Aguadilla	1,407	1,366	2,773	2,373	2,446	4,819	939
Aguas Buenas	1,234	1,139	2,373	1,089	901	1,990	471
Aibonito	1,598	1,567	3,165	1,074	1,019	2,093	390
Añasco	2,992	2,963	5,955	2,743	2,667	5,410	692
Arecibo	5,468	5,759	11,227	5,768	5,228	10,996	1,243

Town.	Births.			Deaths.			Total marriages.
	Male.	Female.	Total.	Male.	Female.	Total.	
Arroyo	531	580	1,111	896	846	1,742	139
Barranquitas	1,283	1,276	2,559	818	728	1,546	603
Barros	1,997	1,885	3,882	1,566	1,247	2,813	844
Bayamón	1,097	1,059	2,156	3,110	2,870	5,980	798
Cabo Rojo	3,231	3,085	6,316	2,731	2,605	5,336	721
Caguas	1,928	1,754	3,682	2,922	2,766	5,688	685
Camuy	1,756	1,699	3,455	1,166	1,111	2,277	680
Carolina	1,076	1,005	2,081	1,391	1,232	2,623	404
Cayey	1,339	1,566	2,905	2,510	2,332	4,842	448
Ciales	2,594	2,448	5,042	2,197	1,964	4,161	932
Cidra	1,401	1,173	2,574	1,121	983	2,104	411
Coamo	2,327	2,211	4,538	1,777	1,666	3,443	536
Comerío	1,652	1,591	3,243	1,082	1,073	2,115	326
Corozal	1,661	1,437	3,098	1,148	1,074	2,222	766
Culebra	59	53	112	44	35	79	.....
Dorado	650	597	1,247	534	493	1,027	96
Fajardo	3,465	3,332	6,797	3,508	3,180	6,688	621
Guayama	1,066	976	2,042	2,608	2,496	5,104	316
Guayanilla	1,421	1,376	2,797	1,366	1,276	2,642	343
Gurabo	760	692	1,452	1,125	1,034	2,159	345
Hatillo	1,633	1,573	3,206	1,100	1,078	2,178	510
Hato Grande	2,580	2,373	4,953	1,957	1,765	3,722	598
Hormigueros	522	500	1,022	604	545	1,149	140
Humacao	1,981	1,820	3,801	2,584	2,175	4,759	375
Isabela	1,480	1,446	2,926	1,680	1,648	3,328	695
Juana Díaz	4,274	4,133	8,407	4,258	3,979	8,237	647
Juncos	1,194	1,169	2,363	1,469	1,453	2,922	240
Lares	1,839	1,759	3,598	1,352	1,260	2,612	364
Las Marías	3,574	3,436	7,010	4,128	3,751	7,879	1,454
Las Piedras	1,010	908	1,918	1,650	1,543	3,193	608
Loiza	1,384	1,186	2,570	1,413	1,350	2,763	359
Luquillo	473	467	940	1,046	912	1,958	177
Manatí	3,711	3,458	7,169	3,927	3,638	7,565	978
Maricao	2,114	2,018	4,132	2,072	1,839	3,911	274
Maunabo	1,039	1,006	2,045	1,254	1,121	2,375	216
Mayaguez	4,272	4,141	8,413	6,986	6,363	13,349	1,417
Moca	1,412	1,427	2,839	1,972	1,780	3,752	874
Morovis	1,644	1,494	3,138	1,201	1,115	2,316	517
Naguabo	1,898	1,761	3,659	1,727	1,532	3,259	466
Naranjito	1,575	1,507	3,082	846	728	1,574	420
Patillas	1,334	1,248	2,582	2,320	2,094	4,414	265
Peñuelas	2,725	2,506	5,231	1,674	1,604	3,278	409
Ponce	5,949	6,155	12,104	9,244	8,382	17,626	1,719
Quebradillas	797	784	1,581	945	961	1,906	619
Rincón	1,390	1,253	2,643	1,018	930	1,948	408
Río Grande	306	278	584	1,237	1,146	2,383	271
Río Piedras	727	609	1,336	2,052	1,805	3,857	334
Sabana Grande	1,297	1,852	3,849	1,998	1,918	3,916	646
Salinas	803	698	1,501	899	530	1,429	144
San Germán	3,926	3,755	7,681	3,999	3,680	7,679	1,231
San Juan	3,937	4,052	7,989	5,975	4,461	10,436	1,166
San Sebastian	2,640	2,267	4,907	2,106	1,945	4,051	1,103
Santa Isabel	852	791	1,643	673	577	1,250	204
Toa Alta	1,138	1,210	2,348	1,012	951	1,963	296
Toa Baja	729	655	1,384	513	493	1,006	92
Trujillo Alto	507	489	996	616	536	1,152	171
Utuado	8,999	8,170	17,169	8,781	8,010	16,791	2,692
Vega Alto	952	915	1,867	812	818	1,630	199
Vega Baja	1,806	1,788	3,594	1,737	1,620	3,357	441
Vieques	1,025	896	1,921	1,284	1,080	2,364	134
Yabucoa	1,616	1,537	3,153	2,666	2,493	5,159	22
Yauco	5,293	5,302	10,595	5,486	5,166	10,652	976
Total	139,176	133,278	272,454	152,228	138,938	291,166	40,385

CLIMATE.

Meteorological data for the year ending May 31, 1900.

[From records of local section of Weather Bureau, in charge of R. M. Geddings, director.]

	Barometer.			Humidity.		Temperature.			
	Mean.	Highest.	Lowest.	Mean relative.	Dew-point.	Mean.	Highest.	Lowest.	Greatest daily range.
1899.									
June	30.03	30.09	29.96	82	73	78.5	95	60	32
July	30.00	30.08	29.92	80	73	79.3	95	58	29
August	29.95	30.03	29.27	81	74	79.3	96	52	37
September	29.96	30.06	29.72	81	74	79.4	97	58	32
October	29.90	29.98	29.77	82	73	78.3	95	58	28
November	29.93	30.03	29.76	85	73	77.5	95	55	33
December	29.97	30.07	29.87	74	67	73.9	94	46	41
1900.									
January	30.01	30.07	29.91	82	69	74.2	93	48	37
February	30.06	30.12	29.99	75	67	74.1	98	46	41
March	30.04	30.18	29.92	71	66	74.6	98	43	45
April	29.99	30.10	29.86	75	69	77.1	96	51	35
May	30.00	30.09	29.92	79	72	79.3	97	60	30
Average	29.98	30.07	29.82	78.9	70	77.1	95.7	53	35

	Sky.			Total precipitation.	Wind.	
	Clear days.	Partly cloudy.	Cloudy.		Prevailing direction.	Total movement.
1899.				*Inches.*		*Miles.*
June	11	12	7	7.07	E. and NE	4,838
July	11	10	10	7.94	NE	6,078
August	11	8	12	16.11	E	5,743
September	14	7	9	9.74	E	5,685
October	11	9	11	9.63	NE. and SE	5,793
November	13	10	7	10.11	NE. and SE	6,841
December	20	6	5	2.80	NE	7,432
1900.						
January	16	10	5	4.47	NE	8,194
February	18	7	3	4.46	NE	7,842
March	19	7	5	1.91	NE	10,213
April	14	10	6	7.69	NE	9,227
May	14	11	6	6.99	E	8,950
Average	14	9	7	7.41	NE	7,236

NOTE.—The barometer, humidity, and total wind movement records are for San Juan only.

DISEASES.

SMALLPOX.

Smallpox has never been absent from Porto Rico and has frequently been epidemic.

The average annual number of deaths for the past ten years was 621, the greatest number, 2,362, occurring in 1890, and the least, 11, in 1893. In 1899 there were about 50 per cent less deaths than in any of the three preceding years. This decrease was due to the general vaccination of the island, which was concluded June 30 of that year; 860,000 vaccinations were performed, under direction of the chief surgeon of the department, during the four months preceding this date. All the deaths reported in 1899 from smallpox except one occurred prior to the day on which the work was concluded. At the rate of 242 for the first six months the annual deaths would have been practically the same as in the preceding three years.

During the seven months covered by these statistics but one death has occurred from this cause. This in November in the district of Ponce.

There is now no danger of an epidemic in Porto Rico, and sporadic cases have become comparatively infrequent. There have been reported monthly to the board from one to five cases during this period, but recovery has taken place except in the one case above referred to.

In order to maintain the island in this condition of immunity the superior board of health secured the issue of General Order, 170, and Circular 44, series 1899. If the provisions of these are carried out it will effectually insure the country from any future dangerous outbreak of smallpox.

TETANUS.

Tetanus caused 818 deaths during the seven months, or 3.41 per cent of total mortality.

There has been very little variation in the rate for the past ten years.

The proportion of tetanus neonatorum to the total was not ascertained, nor the race particularly affected. But it is estimated from reliable information and reports that fully 90 per cent is due to infection through the umbilical cords of new-born infants. This large proportion is entirely preventable, being due simply to the intense ignorance of those in attendance at birth.

Conditions are all favorable to infection by the tetanus bacilus. Its habitat could not be made more congenial, and its facilities for effecting an entrance into the system of the new born could hardly be improved.

When anyone at all is called to assist it is an uneducated neighbor, with possibly a local reputation as a "comadron."

It is contrary to the custom of the inhabitants of the island to engage a regular practitioner, and even though this board has recently secured the publication of an order requiring the licensing of midwives, improvement of these conditions will come very slowly and only by a universal raising of the standard of general intelligence.

The disease is equally distributed throughout the island, and the monthly rate, so far as ascertained, is quite uniform.

ACUTE RESPIRATORY DISEASES AND TUBERCULOSIS PULMONALIS.

Of the first class the great majority of deaths was due to bronchitis and pneumonia. There is a marked uniformity in the monthly reported mortality, although December and January show a slight increase.

Tuberculosis pulmonalis caused 925 deaths during this period. In monthly reports from the various districts many cases of death were returned as "tuberculosis." These have been listed with the unclassified, although, considering the manner in which the municipal authorities compiled these reports, it is highly probably that the intention of the person making the return was to indicate the pulmonary form. This would add considerably to the death rate from this cause.

The per cent to total mortality was 3.86; estimated on the above basis the annual deaths would be 1,885.

Reports for the past ten years show very little variation in the number of deaths from this cause until 1899, when there was quite a marked decrease, which seems to have been maintained this year.

There is a notable monthly uniformity in the death rate.

The disease seems to be quite equally distributed throughout the island, although the municipality of Ponce shows a comparatively large rate, and the mountainous districts are somewhat freer than the lowland countries. This is shown by the following table.

Arecibo, Manati, San Juan, Fajardo, and Aguadilla are taken as representatives of the northern section; Utuardo, Ciales, Barranquitas, and Cayey of the central, and the others of the southern:

	Deaths.	Rate per thousand per annum.
Northern section:		
Arecibo	36	1.6
Manati	20	2.5
San Juan	72	3.7
Fajardo	9	.8
Aguadilla	21	.2
Central:		
Utuado	23	.8
Ciales	3	.2
Cayey	31	3.6
Southern:		
Juana Diaz	16	.9
Ponce	152	4.6
Salinas	6	1.6
Yauco	24	1.5

The relation between the death rate and the density of population is quite marked. San Juan, Ponce, Manati, and Arecibo, all being urban in comparison with the others. Cayey does not follow this order, having a large rate with a scattered population.

Utuado, Ciales, and Barranquitas are notably poor municipalities, with populations made up largely of isolated families well scattered throughout the district. These show a low rate. They are all included in the mountainous districts.

DIARRHEAL DISEASES.

Of the 5,497 deaths attributed to this cause, 2,695 were reported as due to dysentery, and the remainder chiefly to acute inflammations of various portions of the upper intestine. This was 11.6 per cent of total mortality. The infant mortality from this cause was not ascertained, but here as elsewhere these conditions are by far the most prominent cause of children's deaths, and we may assume that the deaths in this class were excessive from the fact that 34.5 per cent of total deaths were of children under 5 years, when for the same months in New York the rate was about 27.5 per cent in 1897. The annual rate would doubtless be much greater, as the statistics for the summer months are not included in the above.

It is observed that in October and November the number of deaths were 1,264 and 1,391, respectively, and that in April only 360 were reported, there being rapid monthly increases.

The large number of deaths from this cause during the first three of these months may be attributed indirectly to the hurricane of last August, which made unavailable the customary food supply. As a substitute the Government distributed large quantities of beans, rice, and codfish. It was a notable fact that at first the natives paid little or no attention to the cooking of these articles, particularly the beans. The necessity for care in this particular has been impressed upon their minds by bitter experience. The intestinal tract, accustomed to plantains, bananas, and an occasional sweet potato, rebelled at uncooked beans. And no doubt these were a factor in the excessive mortality from diarrheal diseases in October, November, and December.

Nearly 50 per cent of the mortality was due to dysentery.

The "dysentery" of these returns is doubtless "a term applied to what is probably a group of diseases, whose principal pathological feature is inflammation of the mucous membrane of the colon, and whose leading symptoms are pain in the abdomen, tenesmus, and the passage of frequent small stools containing mucous and blood." (Manson.)

As in all tropical countries, the pathological condition has always been more or less prevalent in Porto Rico, but reference to the preceding statistics will show that since 1893 there has been a marked yearly increase in the number of deaths from this cause, in that year 1.8 per cent of total mortality being due to dysentery, as compared to 8.9 per cent in 1899. There were nearly twice as many deaths from this cause in 1899 as in 1898.

From the fact that no death from liver abscess was reported during the seven months, it may reasonably be inferred that very little or none of the local dysentery is due to the amœba coli.

The distribution of the disease is practically that of anæmia. It finds its victims among the poor of the inland mountainous districts, and is decidedly infrequent in the cities of San Juan and Ponce. Poverty is apparently the chief predisposing cause, and poverty is and has been rife in the country districts.

ANÆMIA.

In 1890, 18 per cent of all deaths was due to anæmia, since when there has been a steady and gradual increase, until, in 1899, 22.5 per cent of all deaths was due to this cause. During the seven months covered by these statistics there were 6,456 deaths due to anæmia, making the percentage to total deaths 26.9. This is only about 1,000 less than all deaths classed under zymotic mortality. This, added to that due to diarrheal diseases, would make 38.6 per cent of all deaths due to these two conditions.

The present rate of 42 per thousand per annum would be reduced to 31 if we could eliminate the cases of anæmia.

The causes to which this condition is due are of such a nature as to affect the poorest people almost alone. It is well known that a large majority of the island's population is composed of "peons," who are scattered over every portion of the country, living in unusually poor hovels, and subsisting on the merest apology for food.

This is the class in which this large mortality occurs. It can not be better shown than by comparing the death rates from anæmia in the municipalities of San Juan and Ponce with that in the municipalities of Utuado and Adjuntas.

The former may be considered as inhabited by an urban population, while in the latter by far the greatest portion is composed of the peon or poor class.

Ponce and San Juan show a death rate from anæmia of 5 and 1 per thousand per annum, respectively, while in Utuado and Adjuntas the rate is 24 and 32, respectively.

There seems to have been no effort made by the resident physicians to investigate the causes of this condition, and definite knowledge on this point is consequently lacking.

Taking into consideration the fact that there were 1,500 deaths from malarial diseases during this period, it may be concluded that this disease is the cause of many of the deaths returned as anæmia. The poverty of the population, with the resultant lack of nutrition, is probably

in itself the cause of a small per cent of these deaths, but doubtless this is in the great majority of cases merely contributory to a disease which has long been recognized in all tropical countries, but only practically demonstrated in Porto Rico since the American occupation, and by an army surgeon. Reference is made to ankylostomiasis.

At Ponce, in December of 1899, Dr. Ashford, U. S. A,, made what seems to have been the first record of the discovery of the ankylostoma on the island. His official report is herewith attached:

ANKYLOSTOMIASIS IN PORTO RICO.[1]

[By Lieut. Bailey K. Ashford, assistant surgeon, U. S. A.]

I have the honor to report upon twenty cases of the severe anæmia commonly seen among the poor of this island. One of the first observations made by professional men here is the prevalence of anæmia, especially among the poor. This is at first attributed usually to starvation or poor food, then to malaria, and then to the "climate." Through the kindness of the physicians of Ponce I am able to state something as to the mode of treatment adopted up to this time. Some have observed that the ignorant peon treated himself by purging, with beneficial effects for a time and a relapse to previous conditions soon afterwards. Iron and arsenic have been prescribed largely, but with little benefit. Some physicians have frankly declared it beyond their power to cope with the disease, which they regarded as a pernicious, progressive anæmia of obscure origin. The stools have been examined, but no worms being evident this as a cause was dismissed. I was led to examine the fæces for the ova of ankylostoma duodenale, and found them in great numbers. Soon after a large dose of thymol brought away the parasites, male and female. No sooner had I stated my results to the physicians of this city than they agreed as to the diagnosis and verified the parasite and its eggs. Their testimony is as follows:

1. This disease is the most destructive and general disease of Porto Rico.
2. It is found typically and very frequently among the poor and badly fed.
3. Most cases are similar.
4. Bad food and bad hygiene are responsible for much of its power for evil.
5. Blood foods have never exercised more than a temporary influence on the course of this disease.
6. Improvement follows purgation.
7. Up to this time the existence of this parasite had not been proved on this island, or, if proved, not within their knowledge.

In studying this disease I have taken twenty cases which I considered typical of "Porto Rican anæmia," or "tropical chlorosis." These cases were selected from the provisional field hospital for indigent and sick Porto Ricans established after the flood of August 10, 1899, in this city. Although the histories of these cases are inclosed, I should like to refer to such points as seem to me interesting and of frequent occurrence in this disease.

1. *The family history.*—Most patients give a history of deaths in the family from a like disease. At times this history is truly appalling, and casts a light on the extent of the infection among the people. Many claim the deaths to have been due to "malaria" or "diarrhea" or "obscure fever." Of course this matter is problematical, but it is fair to suppose, inasmuch as the disease is often marked by irregular fever, with intermissions, that their diagnoses may be questioned, and we must recollect that our own physicians have in the past placed on malaria responsibilities which do not belong to it. But questions as to chills are extremely unsatisfactory. I know there is much malaria here in the lowlands. I have followed such cases through their course, but the testimony of local physicians coincides with mine, that malarial organisms in the blood are not so often seen as would be supposed. Chills, then, are not so frequent; there are few "ague cakes;" the pallor is not that of malaria, and the scleræ are not icteric. The most suggestive fact outside of blood examination is that the cases come from the mountains and the valleys; some of the very worst cases I have seen came from highly salubrious mountain districts. Nevertheless, I hesitate to affirm that many cases of malarial cachexias do not exist to swell the sum of anæmics here.

2. *The previous history of the patient.*—The diet is a powerful factor in turning the scale against the unhappy victim of ankylostomiasis. Rightly the physicians here quote its influence. Personally, I have eaten and slept in all parts of this island—not alone on the frequented roads, but in those rarely visited by strangers—and can submit my testimony to that quoted in support of this influence. The relation of the

[1] Published by permission of the Surgeon-General of the Army.

daily life among the working classes has been confirmed in talking with many owners of sugar and coffee plantations and their employees. They rise at from 4 to 6 a. m. Some take a little black coffee, some boiled water and sugar, some nothing. They work till 11, when they breakfast on about 4 ounces of codfish and a few pieces of plantain. They return to work at 1 and continue till 5 p. m. Dinner is composed of rice and beans; some have only boiled rice with lard, and some boiled rice alone. It may be mentioned that they get plenty of bad rum and some bad wine. This seems a slight enough diet, but the hurricane deprived them of even this, and the sick poor came drifting down on Ponce. I believe it not probable that those degraded to the level of people whose life is bounded by a tropical plantation, enjoying little beyond the cutting of cane and the picking of coffee, can have a high standard of personal cleanliness, and, as a fact, bathing is not often practiced. Fæces are distributed over the earth wherever the individual happens to be while at work, or in a little shack when at home, but directly on the ground always. Indeed, faeces pollute their very houses. Ponce is a town of perhaps 40,000 inhabitants, yet it has no sewerage and is in the lowlands near the sea. Closets and kitchens are in conjunction in many houses. The water soon takes up its quota of whatever is noxious. Those who are clean in their habits (and the educated classes are a most cleanly people) are polluted by the filth of the poor and ignorant. The configuration of this island is one of steep mountains and deep ravines, with broad plains near the sea. Heavy rains wash the larvæ from each fæcal deposit into these water courses, and this muddy water is probably one source of contamination. Contaminated earth on the hands of laborers is another; fouled garden is another. The larvæ have not yet been demonstrated in the water or mud. The drinking water of nearly all well-to-do people is filtered, and in this class we do not find so great a preponderance of this disease.

3. *The subjective symptoms.*—It is difficult to obtain a history of the disease from its inception, for many have it from infancy. Generally it is possible to obtain some such history as this: A variable appetite, some nausea and vomiting, pain in epigastrium, either constipation or diarrhea (or these may alternate), sometimes dysentery, swellings of the feet and ankles, no loss of weight, sleeplessness, restlessness, tinnitus aurium, giddiness, faintness, severe headache, palpitation of the heart, progressive debility, little perspiration but kidneys active, fever sometimes but not chills. I have not been able to get a history of geophagism nor of intestinal hemorrhage described by some authors. Sometimes the patients improve for a time after medication, but not permanently.

4. *Objective symptoms.*—Pallor: This is divided into three classes by a prominent physician, but I can not see that it has reference to more than the individual color of the patient, whatever that may be irrespective of the disease. The conjunctivæ, lips, tongue, gums, nails, and cheeks are in some cases perfectly pallid, the mucous membranes especially being of a deathly white. The skin is generally a pasty yellow, a dirty brownish-gray, or a grayish-white. Expression: A passive expression is often seen, and its peculiar character is heightened by puffiness of the eyes and bloating of the face. Œdema: This is simply the usual accompaniment of severe anæmia. Practically every variety is seen, the chief being, in order of importance, œdema of the feet and ankles, œdema of the face, ascites, and œdema of the scrotum. Hypostatic congestion of the lungs exists often. The important point is that with this disease there may be emaciation. This has not been present often in my cases; on the contrary, the patients are apparently well nourished. Anæmic ulcers are sometimes seen on the legs and an incorrect accusation of syphilis may be made. Corneal ulcers are at times seen. One of my cases presented corneal ulcers of both eyes. Respiratory symptoms: Generally none from this disease save in increased rapidity of breathing from anæmia, serous accumulations, or hypostatic congestions. Liver: No constant symptom. Spleen: No constant symptom. Heart: These symptoms are very aggravated; signs of a pernicious secondary anæmia. Pulsating vessels: Both jugulars, superficial veins of the arm, and vessels about the root of the neck and heart in severe cases, with greatly dilated heart; pulsating suprasternal and supraclavicular regions and diffused pulsations in the anterior thoracic wall. All kinds of deductions might be made by a careless observer. Hæmic murmurs are almost constantly present, and are in many cases heard in the veins of the neck. The urine: No albumen is found and the specific gravity is constantly low. The pulse is weak, rapid, soft, and compressible. The blood: Attention is invited to the accompanying summary of blood examinations. The following deductions are drawn:

1. A severe anæmia, falling as low as that of Addison's anæmia in count of red cells in some cases.

2. A very low hæmoglobin average and a very low color index.

3. A marked eosinophilia in some cases. Forty per cent reached in one case. This follows the observation of Neusser.

4. No leucocytosis common to the disease itself. Leucocytosis recorded is always apparently due to complications, as noted.

5. Frequent presence of normoblasts, and in some cases megaloblasts, but never a majority of megaloblasts.

6. Poikilocytosis common. Manson denies this.

7. Utter unreliability of blood foods without removal of the cause, the ankylostoma. This blood examination was the first line of research taken up, and as soon as anæmia was proved, the patient was given blood tonics with temporary supporting treatment suited to the individual case, with the idea that the patient might be carried along until a true cause could be discovered. Of course, now, all treatment has been substituted by anthelminthics, chiefly male fern and thymol, and the blood and heart tonics will be again tried when the eggs have disappeared from the feces. I was led to examine the stools carefully from the high eosinophile count, and it is certainly evident that trichinosis has a rival for high counts in ankylostomiasis.

The ankylostoma was found in all cases save one, a case of tuberculosis pure and simple. This patient was chosen to present a contrast, and I think he does. There is true leucocytosis, and the eosinophiles are not much in evidence. Moreover, the red cell count is much higher than all the others, as is the hemoglobin record. In calling attention to this infection we enter upon a large field. The histories of this disease have been made up to show what percentage of the people have the disease in certain countries: Twenty-five per cent in Egypt, 20 per cent in Maitland, 52 per cent in Madras, 13 per cent in Kioto, Japan; but no percentage can be cited as yet for this island. Dr. B. Scheube, of Greiz, speaks in his work of its existing in the Antilles, but no island is specified nor is the extent of the disease stated. From my own observation, and from the opinions of the resident physicians of the island, I believe it to be widespread and destructive. Only twenty cases have been examined, yet all save one have given me the ova of this parasite in large numbers. As the twenty cases were chosen at random from hundreds more just like them clinically, and as the one exception noted was chosen only for contrast, I am convinced that further investigation will show that the disease has killed its hundreds, and that it is curable and preventable. The proof of its prevalence lies naturally in the hands of all scientific physicians of this island. I can not further judge than from a short experience and the positive evidence of nineteen cases submitted.

Manson states that 75 per cent of the people of India in certain localities are infected. Williams quotes 52 per cent in Madras; Griesinger, in Egypt, quotes 25 per cent; B. Scheube, 13 per cent in Kioto, Japan. Its geographical distribution is appalling. Egypt is so full of it that it is known as Egyptian chlorosis and forms the great basis for rejection of recruits of the army. The French of the French Antilles call it cachexie aqueuse and recognize its full importance; and literature is full of its ravages in South America. Thornhill regards it of greater importance in Ceylon than cholera.

There is in Porto Rico a dense population in a small country. In a space of about 100 miles by 60 we have probably over 1,000,000 people. Of the working class it can not be denied that a large percentage have anæmia, and, should the future verify my suspicion, means are at hand to increase not only the well-being of those now suffering, but to insure to the owner of large haciendas of coffee and sugar a better class of labor; to insure to the army protection from the invaliding from anæmia of such troops as are enlisted here; to insure protection against the disease to our American troops; to relieve the State and the hospitals here from the expense of caring for a large number of anæmics who are now slowly dragging on to a fatal end. Perhaps our own sick reports will unfold some additional facts. I mention here only such possibilities as have occurred to my mind; but it is a significant fact that, though it is present in Germany, Scheube notes that it is confined to a few cases. In other words, it appears to assume only such proportions as a country will allow it to assume. I repeat, I have no certain knowledge of the proportions it has assumed here. I have been able only to call attention to what I consider to be its extensive prevalence, and I can not quote any full experience from treatment. I have given thymol in several cases, with the always easily demonstrated presence of the parasite. From the exceeding kindness and the scientific spirit shown by the local doctors, I can not doubt that it will be but a short time before measures will be taken, if there is sufficient extent of the disease found, to alleviate the conditions. I therefore respectfully submit with this report a photograph of my cases, their detailed histories, specimens of the eggs and parasites in 4 per cent formalin solution, and various preparations of stained and unstained blood.[1] I shall not lengthen this paper by any description of a parasite so well known and so fully described by the professor of helminthology at the Army Medical School, nor shall I make further remarks on the history of the disease, its evident prophylaxis and simple cure, until I can call to my aid a more extensive familiarity with it.

[1]These were sent to the Army Medical Museum.

Schedule of blood examinations.

Date.	Current number.	Red cells.	Hemoglobin.	White cells.	Percentage of polymorphonuclear leucocytes.	Percentage of small lymphocytes.	Percentage of large lymphocytes.	Percentage of eosinophiles.	Normoblasts, per cubic millimeter.	Megaloblasts, per cubic millimeter.	Remarks.
Nov. 4	1	1,530,116	20	6,800	65	21	9	5	26	13	Poikilocytosis. Polychromatophilia; many microcytes and macrocytes. Treatment: Digitalis and pepto-mangan. Recount, November 23, 1899: Hemoglobin, 16 per cent; red cells 1,880,000.
Nov. 3	2	697,776	20	7,960	59	17	15	9	144	46	Poikilocytosis. Polychromatophilia; many macrocytes and microcytes. Treatment: Pil. ferri, quin. et strych. and pil. arsenic. Recount, November 23, 1899: Hemoglobin, 23.5 per cent; reds, 2,664,440.
Nov. 4	3	1,533,112	22	2,000	64	22	8	6	8	....	Poikilocytosis. No rouleaux. Treatment: Digitalis and pepto-mangan. Recount, November 23, 1899: Hemoglobin, 23 per cent; reds, 1,973,328.
Nov. 5	4	1,200,000	15	4,200	64	23.4	6	6.6	109	8	Poikilocytosis. Polychromatophilia. Treatment: Digitalis, syrup. ferri iodidi. Recount, November 23, 1899: Hemoglobin, 17.5 per cent; reds, 801,104.
Nov. 6	5	1,484,440	10	6,000	64	24	8	4	12	....	Poikilocytosis. Slight tendency to rouleaux formation; macrocytes and microcytes; latter predominate over former. Recount, November 23, 1899: Hemoglobin, 14 per cent; reds, 687,776.
Do....	6	2,193,328	23	8,800	65	26	8	1¼	123	35	Poikilocytosis. No tendency to rouleaux formation. Treatment: Digitalis, pil. ferri. quin. et strych.
Nov. 7	7	1,633,328	17	5,600	60	23	5	12	11	....	Poikilocytosis. Many macrocytes and microcytes; slight rouleaux formation; marked chromatophilia. Treatment: Digitalis, liq. potas. arsenitis in increasing doses to gtt. to 5 t. i. d.
Do....	8	2,064,664	23	4,800	74	17	6	3	28	....	Poikilocytosis. Rouleaux formation good. Treatment: Pil. ferri. quin. et strych. and digitalis. Recount, November 23, 1899; Hemoglobin, 31 per cent; reds, 3,084,440.
Do....	9	1,271,104	14	7,800	60	17	6	17	30	15	Has elephantiasis Arabum, but I can not identify the filaria as yet. Microcytes predominate over macrocytes. Good rouleaux formation. Treatment: Pepto-mangan. Recount, November 23, 1899: Hemoglobin, 24 per cent; reds, 2,520,000.
Do....	10	1,600,000	17	1,500	72	20	4	4	6	....	Poikilocytosis. Recount, November 23, 1899: Hemoglobin, 13 per cent; reds, 668,888.
Nov, 8	11	1,800,000	25	4,600	69	22	7	2	9	....	Poikilocytosis.
Do....	12	2,266,656	30	7,680	52	26	12	10	....	....	
Nov. 9	13	1,268,888	20	6,800	63	17	7	13	....	....	Poikilocytosis. Rouleaux formation good.
Do....	14	2,440,000	25	11,000	50	10	9	31	....	....	Poikilocytosis. Rouleaux formation slight; has abscess of liver.
Do....	15	2,353,328	17	12,700	73	17	4	6	....	....	Poikilocytosis. Rouleaux.
Do....	16	2,934,444	....	5,200	72	20	5	3	10	10	Tertian malaria parasites found. Rouleaux good.
Nov. 10	17	2,140,000	232	18,000	40	12	8	40	36	....	Poikilocytosis. Rouleaux good. I believe this man to have been suffering from pneumonia at time of examination, although the differential seems strange.
Nov. 20	18	3,524,440	55	14,800	88	9	3	⅛	....	....	Only case not presenting ankylostomes. Has tuberculosis.
Nov. 12	19	Unknown	30	9,000	60	16	10	10	125	....	Poikilocytosis. Rouleaux formation good.
Nov. 20	20	1,560,000	16	2,400	72	10	5	13	....	....	

REPORT OF FIRST LIEUT. F. F. RUSSELL, ASSISTANT SURGEON, U. S. A., ON EXAMINATION OF INMATES OF BOYS' CHARITY SCHOOL.

SAN JUAN, P. R., *July 14, 1900.*

SIR: I have the honor to make the following preliminary report of some investigations made by me as to the variety and prevalence of the intestinal parasites infecting the natives of this island.

Through your kind interest in the subject I was permitted to examine boys in the Insular Orphan Asylum, located near this city. This institution presented many advantages for carrying out the investigation, principally because the boys were well controlled, and because of the intelligent assistance which I received from the people in charge in the trying business of collecting and marking of specimens of fæces.

I have included in these 100 examinations only healthy boys, although there were a number of examinations made of patients in the hospital at the same time, because I wished, in this series of cases, to arrive at some idea as to the extent of the prevalence of intestinal parasites among the healthy on the island.

These conditions are very well fulfilled by the boys in one way, and yet badly in another. While they, coming as they do from all parts of the island, represent well the conditions existing on the island as a whole, yet they are so much better housed, so much better fed and cared for in a way that is only possible in such an institution, that they do not represent the deplorable conditions that are found in the country parts of the island, where there exists no such thing as sanitation. Therefore the results, surprising as they are, in my opinion (which has been formed during a stay of a year and a half on the island), fall short of showing the universality of infection by intestinal parasites among the peasant class.

I found by examining 100 healthy boys, that the ankylostomum duodenale was present in 54 per cent, trichocephalus in 93 per cent, ascaris lumbricoides in 10 per cent, strongyloides intestinales (rhabdonema intestinale) in 5 per cent, and in one case I found the balantidium coli.

The parasites, other than the ankylostomum duodenale, present very little that is of special interest; even the balantidium coli was found in company with the ankylostomum and trichocephali dispar, and although it was present in enormous numbers, the boy had only a moderate diarrhea, and was not considered sick enough to be placed in the hospital.

But as to the ankylostomum duodenale, the case is quite different and its importance can scarcely be overestimated.

I think that the work of Lieutenant Ashford, assistant surgeon, U. S. A., has established the fact that the anæmia of this island is the same disease as has been described by Griesinger as "Egyptian chlorosis" and later by Wucherer and other observers, as "tunnel anæmia," and "bricklayer's anæmia," etc. Its importance seems scarcely to be appreciated by the natives of the island.

That the victims are more seriously affected by all intercurrent diseases, hardships, and privations is a very reasonable supposition, when one considers the never-ending abstracting of blood in larger or smaller quantities, caused by the parasites in their victims, with the consequent loss of resisting power to any form of disease. To establish this point, I have examined the stools of native soldiers, sick in hospital from all causes, with rather striking confirmation of the supposition.

Among 19 native soldiers suffering from every variety of disease, I found that 84 per cent were infected, whereas only 54 per cent of the healthy were harboring the parasites, showing how much more liable to other forms of sickness these people are than those who are uninfected.

Among the Americans on the island I have found only one case of infection by the ankylostomum. In his case the parasite was present in enormous numbers, and the resulting anæmia was very severe. The administration of thymol removed the parasite promptly, and the man is, at present, again in perfect health, with normal blood count and full hæmoglobin percentage.

The ascaris lumbricoides I have found frequently among the American troops, and have no doubt that it was acquired here.

The balantidium minutum (Jakoby and Schandiun) I have found twice in cases of severe diarrhea occurring in Americans, both cases differing in their clinical behavior from the ordinary chronic diarrhea; and it seems to me, in these two cases, at least, that the balantidium minutum stood in a causal relation to the disease.

A word may be added as to the examination of feces for the ankylostomum. A small bit of the solid feces is mixed with a drop or two of water on a glass slide until the mixture is perfectly fluid. It is then examined, with or without a cover glass, under a low power of the microscope—60 to 190 diameters—when the ova are readily made out.

The process is so simple that anyone, whether he has any training in the use of the microscope or not, will experience no difficulty in making a diagnosis after a little practice.

Very respectfully,

F. F. RUSSELL,
First Lieutenant, Assistant Surgeon, U. S. A.

THE CHIEF SURGEON,
Headquarters Department of Porto Rico, San Juan, P. R.

These two reports sufficiently indicate the deplorable conditions existent throughout the interior, conditions which are so obviously dependent upon poverty and ignorance and which bear such an important relation to the high mortality rate. It is undoubtedly a fact that some deaths are returned due to anæmia without sufficient knowledge of the history of the case to make a more accurate diagnosis. Nevertheless, when modern economic conditions prevail in Porto Rico, the death rate will be reduced just so far as it is now increased by the deaths from anæmia.

MALARIAL DISEASES.

In this class 1,514 deaths were reported, being 6.32 per cent of total deaths. They were quite regularly distributed through the seven months and are fairly equally distributed throughout the island, except in the case of Juana Diaz, where 27 per cent of total deaths were reported as due to this cause, and Maunabo, where the per cent was 45. Toa Alta showed 35, and Arroyo 24. Añasco, Coamo, and Guyanilla exhibited also an abnormally high rate, being 15, 16, and 21 per cent of total deaths, respectively.

General investigations as to the relative frequency of the various malarial organisms have not been made. From symptomatic diagnosis it is estimated that but a very small per cent of the cases are due to the æstivo-autumnal organism. This was confirmed by the examinations of the blood of a series of cases admitted to the military hospital in San Juan. In these cases the discovery of the organism of pernicious malaria was a rare occurrence, the large majority of examinations revealing either the quartan or tertian plasmodium.

It must be borne in mind that these statistics are possibly affected by the fact, noted above, that many deaths occur without medical attention. As with anæmia, it is a simple and satisfactory diagnosis with which to fill in a certificate when definite information is impossible to obtain.

VENEREAL DISEASES.

The attention of the board was early called to the prevalence of venereal disease in Porto Rico. The necessity for action with view to controlling these diseases and protecting the United States soldiers, the people in the United States, as well as the civil population here, was appreciated. This necessity was made more apparent by the following letter from the chief surgeon to the adjutant-general of the department, which was referred to the superior board of health with directions to devise some means for controlling prostitution in garrisoned towns. It was referred to a special committee, whose report to the board was adopted. (See p. 46.)

SEPTEMBER 21, 1899.

SIR: I have the honor to invite your attention to the extraordinary prevalence of venereal diseases in this command, which seriously hampers its effectiveness, requires the discharge on surgeon's certificate of a considerable number, entails life-long invalidism on many, and threatens our people at home through those returning from here.

It has been found by actual examination that 15 per cent of the Porto Rican battalion are suffering from venereal diseases, whereas the last weekly report of that command shows a record of nonefficiency from this cause of only one-half of 1 per cent. Undoubtedly this condition obtains throughout the command, and the reported cases of venereal diseases are probably a small proportion of the actual number existing.

The last consolidated weekly report shows a noneffectiveness from venereal diseases of 2 per cent for the entire force; whereas, if we accept the percentage as shown by actual examination in the Porto Rican battalion, it will be seen that there are in this command to-day 450 cases of venereal disease, 390 of which do not appear on the records.

Certainly every effort should be made to remedy this state of affairs, if it actually exists, and the attention of post and company commanders and surgeons should be called to the necessity for this. To meet the conditions, I respectfully recommend—

First. That every enlisted unmarried man in the command be examined by the surgeon each week and, if necessary, isolated.

Second. That in every garrison town prostitutes be licensed, regularly examined, and, if necessary, isolated.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., Chief Surgeon.

The ADJUTANT-GENERAL,
Department of Porto Rico, San Juan, P. R.

In 1893 a marked increase in disability among the Spanish troops stationed at San Juan, attributable to venereal diseases, prompted the civico-military authorities there to inaugurate a system of registration and examination of prostitutes, with isolation when required. This was instituted about the end of 1894, and is at present in force. No other community on the island has laws of this nature.

The admissions from this cause to sick report per 1,000 in the Spanish army in Porto Rico from 1889 were as follows:

1889	395	1894	256
1890	259	1895	520
1891	333	1896	411
1892	291	1897	401
1893	415	1898	566

Records of the United States Army show that during the first six months of 1899 the rate of admission per thousand per annum was 467.80. In 1897 the rate of admission from these causes in the United States Army, stationed entirely at home, was 84.59. This disproportion is also evident in the armies of European countries when comparison is made between those at home and those stationed among an alien population.

For the three years ending 1892 the ratio of admission in the British army averaged 208.7 at home and 438.1 in India. In 1891 the ratio in India was 522.8 per thousand per annum.

The condition in the Porto Rican battalion, as stated in the above letter, certainly indicates the prevalence of these diseases in San Juan, where a system of regulation of prostitution has prevailed for a number of years.

There are 111 registered prostitutes in the capital, living in 20 registered houses. These prostitutes are examined twice weekly, and those found suffering from venereal diseases isolated in a lock hospital. The regulations governing this are those promulgated in 1894 by the Spanish Government. They are both inadequate and partially enforced. A prominent practitioner of San Juan, the only active member of the local board of health, states that there are no less than 400 prostitutes unregistered, and fully 50 unregistered houses of prostitution.

There is a daily average of 25 inmates at the lock hospital. The report for the month of May was as follows:

Remaining from April	18
Admissions	42
	60
Cured and discharged	33
Remaining	27
	60
Diagnoses:	
Chancroid	25
Chancre	4
Gonorrhea	24
Secondary syphilis	6
Venereal warts	1
	60

This report is practically a repetition of those for preceding months. It shows that 42 admissions were made during May. This is 38 per cent of the registered prostitutes. It is not too much to suppose that fully as great a per cent exists among those not licensed.

In fact it is more than probable that a larger number would be found, inasmuch as the very lowest classes, washerwomen, servants, etc., practice prostitution for the purpose of adding a mere pittance to their income. Upon the above estimate of 400 unrecorded prostitutes, there would be in any one month 152 new cases of venereal diseases among those not under the supervision of the officials. And in fact the actual number of women so diseased would be largely augmented, for it is probable that but few obtain any medical treatment.

This is borne out by the experience of medical men in private practice. When the average physician sees daily in the neighborhood of ten cases of venereal diseases, chiefly gonorrhea, it may be safely assumed that the condition is rampant.

It is not difficult from the above to account for the fact that the admissions increased in the Spanish army after the adoption of the regulations. It is probable that the regulations simply did not affect the condition.

Regulations, unless most thorough in their provisions and most rigorously executed, are worse than useless. They tend to propagate those conditions which they were designed to control. On the other hand, their value when adequate is doubtless great.

The ratio of admission in the European armies in 1892 varied from 27.9 in Germany to 69 in Italy, while in the United States the ratio was 72.46. In all the former some special regulations are in force for preventing the spread of these diseases, generally including the registration and examination of prostitutes.

Lock hospitals began to be opened in India in 1865. The system was extended up to 1872 and remained in force until 1884, when the hospitals began to be abolished, and were entirely closed in 1888. In 1891 and 1892 cantonment hospitals were in operation, by which means regulation of prostitutes was again carried out, but this system was so altered in 1898 as to become ineffective in this direction.

The following extracts from a report of a departmental committee

A LEPER FROM PONCE.

on the prevalence of venereal diseases among the British troops in India indicates the effects of these changes on the ratio of admission:

From 1861 there was a steady and marked decline in the admission rate for venereal diseases until 1867, when it reached the lowest figure (160.2 per thousand) recorded in the period under review. From 1867 it moved irregularly, but with an upward tendency until 1873 (181.7 per thousand), afterwards more rapidly upward until 1884 (293.5 per thousand). Between 1867 and 1884, however, secondary syphilis, the worst form of venereal disease, showed practically no increase. The admission rate for this, which was 23.7 per thousand in 1867 and 24.4 in 1884, fluctuated in the interval between a maximum of 25.4 in 1868 and a minimum of 20.4 in 1873, with a mean of 23.5 for the whole period. In the years 1885 and 1886 there was a general and serious increase in all forms of venereal disease, followed by some diminution in 1887. From the year 1888 to 1890 the rise was alarming, the admission rate in 1890 exceeding 50 per cent of the strength.

The great increase in the prevalence of venereal disease which, as we have seen, occurred in the years 1888 to 1890 was followed in 1891 by the most rapid decline in the admission rate shown in any year of the series. It rose somewhat in 1892, and in the three succeeding years the rise was rapid and continuous, reaching in 1895 the highest figure yet recorded, 522.3 per thousand strength, or 536.8 per thousand of troops in cantonments only, i. e., excluding troops on the field service in Chitral and Waziristan. The prevalence of the disease varies greatly in different stations and at different times, and it is found to decrease materially when, owing to outbreaks of smallpox or cholera, bazars or cities in the neighborhood of cantonments are temporarily placed out of bounds.

Far the most serious feature in recent years has been the disproportionately great increase in the amount of primary and secondary syphilis. This latter, as we have seen, showed no very serious increase from the years of its lowest prevalence down to 1884. In the two following years it increased rapidly, but it diminished in 1887. From 1887 onward we are able to show clearly the changes which have taken place in the prevalence of syphilis, both primary and secondary, with the following truly alarming results: In the nine years, 1887–1895, while nonsyphilitic venereal affections have remained almost stationary in amount, the admission rate for primary syphilis has risen 180 per cent (i. e., from 75.5 to 174.1 cases per thousand men), and that for secondary syphilis no less than 188 per cent (i. e., from 29.4 to 84.9 cases per one thousand men). The rise was not indeed continuous, a temporary but marked improvement being shown in 1891 and 1892, but the latest figures are the worst yet recorded.

Secondary syphilis was more than four times as prevalent in 1895 as it was in 1873.

The board earnestly recommends that steps be taken at once to institute regulations for the control of prostitution, which shall be most thorough. This with a view to lessening venereal diseases in Porto Rico.

LEPERS.

The superior board of health during the first month of its organization controlled the leper asylum, and at this time took steps to place the institution on a modern basis, primarily by finding a suitable place for the establishment of a colony. (See committee report, p. 39.) The board of charities assumed charge of the lepers on its organization, and nothing further was done in this direction by the board.

It is estimated that there are not more than 75 lepers in Porto Rico, 17 of which are at present isolated at San Juan. From the fact that this disease has existed here indefinitely, with no energetic measures taken for its care, it may be reasonably supposed that local conditions are not altogether favorable for its spread.

It has been practically impossible to secure reliable information as to the actual number and classification of the lepers. From unprofessional sources 400 cases were reported, but this was palpably wrong, and inquiry revealed the fact that practically all these cases were sim-

ply elephantiasis, which is extremely prevalent here. So many of the natives never see a physician, even when ill, that when a case of leprosy is occasionally brought to light it is in all probability merely by chance. These cases seldom seek treatment, and undoubtedly intercurrent disease ends the existence of some in the hills, who in more accessible countries would have long before been isolated as lepers.

It is generally agreed by the resident practitioners that the tuberculous form is much more frequent here than the anæsthetic.

Although so passive in Porto Rico in the past, experience has shown that unless stringent measures are taken where leprosy is once implanted there will be a progressive increase in the number of its victims. While the number is as yet comparatively small, every possible step should be taken to discover and segregate each leper now on the island, and for the accomplishment of this the first necessary action is the establishment of a properly equipped leper colony.

There is no apparent reason why leprosy should not be stamped out of Porto Rico as successfully as has been done in European countries, where it was at one time very prevalent, but is now rarely seen.

BLIND.

In October of last year the alcaldes were asked to report to the board the number of blind persons in their respective districts. These reports made an aggregate of 1,200. It is believed that the total would reach the large number of 2,000. This is at the rate of about 1 for every 480 of the inhabitants. This large proportion can be better appreciated when comparison is made with the statistics of one of our own States. Pennsylvania, for example, with a population of about 6,000,000, reports but 325 blind people, or about 1 to every 18,500 of its population.

The existing conditions that account for this unfortunate state of affairs may be expressed by the words "ignorance and poverty." Ignorance permits the disease which is responsible in the greater number of cases; that is, gonorrheal ophthalmia, and poverty prevents its proper care when once contracted.

The opinions of thirty of the most prominent Porto Rican practitioners on the principal causes of blindness here have been obtained. The consensus of these is that gonorrheal ophthalmia, most frequently neonatorum, is the most prominent agent in the causation of the blindness.

Loss of sight as a sequela of smallpox is considered by many to have been an extremely frequent occurrence, and cataract (in many cases operable) is reported as very prevalent. Glaucoma and syphilis are not considered frequent causes.

Almost without exception, the physicians laid great stress upon the fact that the total lack of scientific treatment was the true cause of the ultimate blindness. If any treatment was employed, it was such as recommended by the most ignorant quacks, usually old women, of whom it appears there are many, who prey upon those but little lower than themselves in the scale of intelligence. It seems to be the custom among the poor to use filthy washes in the treatment of simple as well as grave eye conditions. Urine is a frequent constituent of these washes. Considering the prevalence of venereal diseases, it is remarkable that gonorrheal ophthalmias have not caused a far greater number of blind.

There are very few specialists among the physicians, and no free dispensaries. This also is in contrast to our northern facilities.

The thorough vaccination of last year has eliminated smallpox as a cause of the future, but education and a general improvement in economic conditions alone will cause a decrease in the prevalence of gonococci infection.

The practice of these quacks above referred to is, of course, illegal, and every means should be taken to suppress them.

Attention is called to Paragraph XIV, General Orders, No. 191, series 1899, from these headquarters.

VACCINATION.

The United States Army Medical Department completed the general vaccination of the island on June 30, 1899. During the four months preceding approximately 800,000 vaccinations were performed. This work practically insured the country against the possibilities of a smallpox epidemic. With a view to reaching those who escaped the operation during this work and to maintaining a permanent condition of immunity, this board established in August a station for the production of vaccine virus and secured the issue of General Orders, No. 170, paragraphs 20, 21, and 22 of which provide for the vaccination of infants and others (see p. 59), and circular 44, which supplements the preceding by providing for vaccinators, methods to be pursued, and the dates for each municipality (see p. 63).

The station since its opening has been located on the grounds formerly occupied by the Instituto Agrinomico, near Martin Peña, about 5 miles from San Juan. It has supplied regularly each week large numbers of freshly charged vaccine points, which have been distributed throughout the island as occasion required. Virus has been sent to the respective municipalities in such quantities as required on the dates prescribed for general vaccination in the above-mentioned circular. Immediate reports of cases of smallpox were made to the board by all physicians. On the receipt of such reports the board forwarded to the alcalde of the district in which the case occurred, with the necessary instructions, a sufficient number of points to vaccinate all exposed persons.

The following are the statistics of the vaccine station from the date of its institution to April 30, 1900:

Total number of points secured since opening	65,465
Total number of cattle used	127
Total number of cattle successfully vaccinated	95
Total number of cattle unsuccessfully vaccinated	32
Largest number of points secured from any one animal	3,018
Smallest number of points secured from any one animal	20
Average number of points secured from male animals	975
Average number of points secured from female animals	521
Average number of points secured from all animals	678
Number of animals rejected	12
Causes of rejection:	
Warty excrescences on flanks	7
Wounds	2
Suspicion of glanders	2
Already vaccinated	1
Number of animals killed at station	1
Amount paid per head for use of cattle—	
Until September 14	$0.60
Thereafter	1.80

The want of success in those listed as unsuccessfully vaccinated, in about 50 per cent of the cases, was due to the fact that the animals managed to injure the site of the operation subsequent to the inoculation.

The expenses of the station were:

For inauguration and repairs	$544.45
For maintenance to April 30	1,294.33

The cost of each point produced was 2.06 cents.

NOTE.—In calculating this, one-tenth of the expenses for permanent fixtures has been added to the running expenses.

There have been distributed to the various municipalities 46,244 vaccine points, as follows:

Adjuntas	525	Hato Grande	300
Aibonito	700	Humacao	425
Aguada	500	Isabela	300
Aguadilla	1,442	Juana Diaz	725
Aguas Buenas	850	Juncos	300
Anasco	1,000	Lares	425
Arecibo	2,400	Las Marias	300
Arroyo	500	Lajas	300
Barranquitas	500	Manati	700
Barros	500	Morovis	200
Barceloneta	800	Mayaguez	2,313
Bayamon	1,357	Maricao	800
Carolina	500	Maunabo	200
Caguas	800	Moca	300
Ciales	800	Naguabo	200
Camuy	700	Naranjito	300
Corozal	500	Patillas	200
Cabo Rojo	500	Penuelas	200
Coamo	650	Piedras	200
Cayey	400	Ponce	6,953
Cidra	300	Rincon	610
Comerio	200	San Sebastian	445
Culebra	325	San German	121
Dorado	200	San Juan	1,372
Fajardo	600	Utuado	1,600
Guayama	500	Vega Baja	300
Guayanilla	300	Vieques	100
Gurabo	400	Yabucoa	250
Hatillo	300	Yauco	6,756

The difference observed between the quantity produced at the station and that distributed is represented by the number of points produced above the number required. After two weeks these were returned from the office to be recharged.

All distributions of virus have been absolutely without expense to the municipalities. All physicians have been supplied with record books and blank certificates of vaccination; this also at no expense to them. Monthly nominal reports of vaccination were requested from practitioners, but these were not sent. An effort was made to ascertain the number of operations performed during this period, but not half the districts reported, and the reports received were not at all complete. They indicate, however, that 371 children under 6 months and 7,954 others were vaccinated, and 703 were revaccinated, a total of 9,128 operations. Of these, 3,318 were reported as successful, 1,065 as unsuccessful, and the remainder unknown. Upon the recommendation of this board the board of prison control last October

ordered all prisoners vaccinated, and all thereafter confined to be vaccinated on admittance. It is estimated that 20,000 vaccinations, more or less, were performed during the period covered by this report.

CONCLUSIONS.

Considering the brevity and unusual conditions of its existence, the difficulties with which it had to contend, and the multifarious demands made upon its members, most all of whom were members of other departments of the military government, besides being charged with the duties of their proper offices, I venture to state my opinion that the superior board of health of Porto Rico has justified its existence and proved itself worthy of commendation.

In view of the duties prescribed for it in General Orders 102, series 1899, from these headquarters, it may be asked to what extent has the board complied with its requirements.

There is scarcely a single subject mentioned in this comprehensive order, embracing as it does almost the entire field of civil sanitation, that has not received the careful consideration of this board.

It has perfected a very satisfactory administration within its own office; its books, blanks, and record being models.

It has licensed the entire medical personnel of the island, and placed itself in touch with those upon whom it must depend in case of an epidemic.

It has organized local boards of health in all municipalities in Porto Rico, and published regulations governing them.

It has organized a vaccine station and prescribed laws for continuing the immunization of the people from smallpox.

It has organized a chemical laboratory and provided stringent rules governing the purity and wholesomeness of foods and medicines. It has required that the formulas of all proprietary and patent medicines should be registered in the office of the board, and it has prepared a code of regulations, most of which has been published in general orders from these headquarters, as follows:

1. Permitting slaughter of pregnant cattle. General Orders, No. 142, September 18, 1899.
2. Controlling purity of food, drinks, and medicines. General Orders, No. 151, September 27, 1899; General Orders, No. 17, January 31, 1900; General Orders, No. 48, March 7, 1900; General Orders, No. 87, April 25, 1900.
3. Regulating practice of medicine, pharmacy, etc. General Orders, No. 153, September 30, 1899; General Orders, No. 163, October 14, 1899, paragraph 3; General Orders, No. 28, February 7, 1900; General Orders, No. 191, November 27, 1899.
4. Interior quarantine. General Orders, No. 170, October 24, 1899.
5. Requiring necessary statistical returns. General Orders, No. 181, November 18, 1899.
6. Pertaining to contagious diseases of domestic animals. General Orders, No. 221, December 19, 1899.
7. Regulating vaccination. Circular 44, December 14, 1899.
8. Providing for municipal physicians. General Orders, No. 67, March 29, 1900.
9. Establishing local boards of health. General Orders, No. 66, March 29, 1900.
10. Nuisances. General Orders, No. 80, April 12, 1900.
11. Providing for and regulating control of municipal cemeteries. General Orders, No. 69, April 2, 1900.
12. Regulating the slaughter of cattle; providing for meat inspectors. General Orders, No. 78, April 10, 1900.
13. Regulating burials, disinterment, etc. Circular 16, April 19, 1900.

The following were proposed, but not published.

1. Controlling operations offensive or dangerous to life.
2. Controlling public water supply.
3. Public institutions.
4. School hygiene.
5. Tenement houses.
6. Boarding and lodging houses, hotels.
7. Providing for house-to-house inspection.
8. Slaughterhouses.
9. Trades and workshops.
10. Plumbing.
11. Dissection.
12. Prostitution.
13. Sewerage.

It has reinaugurated, perfected, and enforced a system of registration of births and deaths, by which approximately correct vital statistics have been obtained.

It has conducted examinations for the licensing of those who desired to practice medicine in any of its departments, and have arrived in the country since its occupation by our forces.

It has made investigations respecting the causes of disease, and has disseminated information upon the subject of the more frequent diseases found here.

It has appointed honorary inspectors in every district, from whose reports much valuable sanitary information has been obtained.

It has conducted an immense correspondence, and has advised the executive upon all sanitary subjects regarding which inquiry has been made.

With the advent of civil government May 1, 1900, the board over which I had the honor to preside ceased to exist by limitation of law, and was succeeded by a board reconstituted in compliance with Paragraph IV, General Orders 102, current series, from these headquarters.

The military government is indebted to each individual member of the superior board of health, organized by and serving under it, the majority of whom represented the medical departments of the public services, and whose intelligence, zeal, and energy were of the highest order.

The board is indebted to Dr. G. G. Groff, its able first secretary, for a wise and untiring devotion to its work and interests, which went far toward making its successful record.

And, finally, I am personally indebted to Dr. Harold W. Cowper, who succeeded Dr. Groff as secretary, for most valuable assistance in the compilation of statistics and the preparation of this report.

Respectfully submitted.

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A., Chief Surgeon Department of Porto Rico, and former President of the Superior Board of Health of Porto Rico.

The ADJUTANT-GENERAL,
Department of Porto Rico, San Juan, P. R.

APPENDICES.

APPENDIX A.—*Report of committee of examiners.*

Paragraph IX, of General Orders, No. 102, series of 1899, dated San Juan, July 18, 1899, assigns the regulations of the practice of medicine to the superior board of health. The paragraph reads:

"To prepare regulations governing the admittance of persons to the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming and undertaking, and to enforce such regulations as are adopted by the government of the island."

General Orders, No. 153, series of 1899, authorizes the superior board of health to appoint an examining committee, and defines their duties and the fees to be charged for the examinations.

General Orders, No. 191, series of 1899, further regulated examinations and the practice of medicine, pharmacy, etc., in Porto Rico. (See p. 56.)

By resolutions adopted September 7, 1899, the superior board of health decided that all examiners shall be familiar with both the English and Castillian languages, must be of good reputation in their respective professions, and of at least ten years' practice.

The following gentlemen were appointed on this committee: Dr. Ricardo Hernandez, San Juan, recorder; Dr. P. J. Salicrup, Ponce, P. R.; Dr. Guillermo Curbelo, Arecibo, P. R.; Dr. R. M. Ponte, San Juan, P. R.; Mr. Domingo Peraza, Santurce, P. R.

After due notice was given for one month in all the leading newspapers of the island, examinations were held in the offices of the superior board of health in San Juan, November 13 to December 13, 1899, at which the following persons appeared, all of whom passed the examinations with grades above 75 per cent, as required by the regulations of the board, and were recommended to the superior board of health for licenses to practice in Porto Rico.

In medicine and surgery—Narciso Dobal, licentiate, Santiago, Spain; Francisco M. Susoni Abreu; Venancio Abella Blanco, M. D., Barcelona, Spain; Mariano Ramirez Lopez, Montpelier, France; Francisco Aguirre, licentiate, Madrid, Spain; H. R. Heydecker, M. D., Harvard University, United States.

In pharmacy—Isaac Rodriguez, Jose Ramos Rodriguez, certificate of preceptor in pharmacy.

In dentistry—Eduardo C. Casalduc y Goicoechea, D. D. S., Pennsylvania; Edwin A. Thayer, D. D. S., Pennsylvania.

In minor surgery—Simeon Martin del Nio, Agustin Otero, William Miller.

In midwifery—Julia M. Robins.

This examination was conducted by Drs. R. M. Ponte and Ricardo Hernandez and Mr. Domingo Peraza, and all the papers were examined by the whole committee, by whom the recommendation was made.

A second examination was held January 15 to 31, after due advertising. At this examination the following passed, with honor, and were recommended for licenses:

In medicine and surgery—Hon. B. Mosquera, M. D., University of Pennsylvania, late minister of public instruction in Venezuela; V. M. Flores Arrieta, M. D., University of Caracas; J. de C. Giminez y Giminez, Bellevue Medical College, New York.

In pharmacy—Miguel Font y Diaz, Juan Cervoni Massari, Robert J. Salicrup, certificate of preceptor in pharmacy.

In minor surgery—W. Bernard Stebbing.

On January 15, 1900, the examiners held a meeting in the office of the superior board of health, at which Dr. P. J. Salicrup was named president pro tempore (awaiting the action of the superier board of health) and D. Ricardo Hernandez recorder.

REGISTRATION OF PHYSICIANS, PHARMACISTS, DENTISTS, ETC.

Under the Spanish Government in Porto Rico the above classes of professional persons were required to register with the royal subdelegations of medicine and surgery, the pharmacists registering with the subdelegation of pharmacy. Many physicians, especially those with Spanish diplomas, registered at the palace in a volume kept by the governor-general. The register found at the palace is in two columns, both of which appear to have been transcribed from earlier records. Both books are very carelessly kept. The two subdelegations kept no registers, but each name was entered in the minute books, which ran on with two continuous records from the beginning.

The first records of the subdelegation were made in 1841, and in the subdelegation of pharmacy in 1839.

With the subdelegation of medicine, not only were physicians registered, but also dentists, practitioners of minor surgery, midwives, nurses, veterinarians, and even those who practiced as manicures. Physicians are registered as "licentiates," and in early years nearly all are so inscribed. Later, doctors of medicine appear on the register in greater and greater numbers, until at the period of the American occupation most of those who registered were graduates in medicine.

Surgeons were registered as first, second, and third class—surgeon practicos, skilled surgeons, surgeon medico practicos, and one is registered "sanitary officer," and one as "skilled person."

The following medical colleges have been represented in Porto Rico, viz: Habana, Cuba; Barcelona, Santiago, Cadiz, Sevilla, Valencia, Paniplana, Zaragoza, Valladolid, Granada, in Spain; Paris and Montpelier, in France; Heidelberg and Würzburg, in Germany; London and Dublin, in British Islands; Turin, Pisa, Rome, and Naples, in Italy, while scattering diplomas appear from Brussels, Oporto, Geneva, and Callada, the Institute of Santo Domingo, with quite a number from the University of Caracas and Venezuela. In the United States the medical schools of Philadelphia, New York, Baltimore, Boston, and the University of Michigan. Pharmacists are registered as pharmacists, there appearing but five "doctors of pharmacy," graduates of Madrid and Barcelona.

General Order No. 153, from these headquarters, dated San Juan, September 30, 1899, placed the duties of the royal subdelegation upon the superior board of health. To complete the records, this board employed Prof. Solomon Dones, by whom complete indexes have been made, and all the physicians, pharmacists, dentists, etc., on the island are now included in the register.

The totals are as follows, since 1839:

Physicians	479	Practicantes	158
Pharmacists	374	Midwives	22
Dentists	58	Nurses	1

RICARDO HERNANDEZ, M. D.,
Recorder.

APPENDIX B.—*Report of chemist.*

SAN JUAN, P. R., *May 30, 1900.*

SIR: I have the honor to submit the following report of the work accomplished in the chemical laboratory of the superior board of health of Porto Rico from the date of its inauguration to the 30th of April, 1900, inclusive:

In this connection allow me to call your attention to the fact that to the delays necessarily incident to the opening of any laboratory of this nature were added others arising from our isolated position relative to the source of such supplies as were indispensable to the prosecution of the work proposed. As a result of these delays, no less unavoidable than unfortunate, and which no provisions could have prevented, it was not until the latter part of March that the laboratory, nominally opened February 7, was sufficiently equipped as to chemicals and apparatus to make anything like a systematic investigation along the lines contemplated practicable or even possible.

Owing to the very prevalent opinion that an investigation of the various articles of food would show that the adulteration of these was a very common practice, and to the belief that the detection of this fact would tend to a diminution at least of

this constant and potent source of injury to the public health, it was thought an investigation along the line of food adulteration would abundantly justify all efforts made in the research.

In the absence of any data upon which could be founded an opinion as to what would probably be the most profitable line of work, it was thought best to investigate at first, in a rather incomplete way, those articles of food which, from their character, lend themselves more readily to falsification, hoping that the results secured in this way might indicate those articles that could more profitably be examined at greater length.

Accordingly, on March 29, in accordance with instructions received on that date from the superior board of health of Porto Rico, I began an investigation of the wine, butter, vinegar, and lard sold in the markets of San Juan and Puerta Tierra, and it is with the results of that investigation that this report chiefly deals.

Just prior, however, to the commencement of this work and as a result of the fact that suspicion has been aroused in regard to the so-called "Anis" of this country, a rather limited investigation was made of six samples purchased in open market at San Juan. This investigation revealed no basis for any suspicions as to the use of deleterious articles in the manufacture of this beverage. In the absence of any recognized standard of composition of course no comparisons with such could be made.

VINEGAR.

Of the fourteen samples of vinegar examined, all but three of those properly classed as vinegar were low in acid value, which, with the abnormally low density shown by all but two, points strongly to dilution with water. In three samples, all purchased at the same store, and, no doubt, representing the same stock, I detected free sulphuric acid, and afterwards proved it to be present in an amount approximating 1½ per cent. Of course it is unnecessary to call attention to this as a flagrant example of adulteration.

The very small amount of total solids shown by most of the samples examined, indicated the very general use of artificially prepared vinegar, a not unnatural consequence of the almost complete absence of apples and grapes. While no objection can be raised to the sale of artificial vinegar, I can see no reason why a nearer approach to a higher acid value should not be insisted upon.

WINES.

It is an open secret that the so-called "wine" of Porto Rico has no right to be so classed, and as that part of the investigation of this subject comprised within the time covered by this report was limited to wines of this character, little was learned that was not already known.

Of the twelve samples examined all showed a very low value in alcohol, the percentage ranging from a minimum of 1.5 to a maximum of 7.6. Molasses seems to be the starting point in the production of this beverage, the resulting "wine" merely being this substance in a more or less advanced state of fermentation.

MILK.

Previous to the above investigation the study of the milk supply had been begun, but was interrupted before much had been accomplished.

The low density of the two samples examined indicated dilution, while the determination of the fat it both samples disproved the rather remarkable statement that Porto Rican milk was devoid of in, though the amount was less than 3 per cent.

BUTTER.

The results of the examination made of this subject fully confirmed the suspicions previously entertained as to the extent of the adulteration of this article, and show Porto Rico to be the "dumping ground" of those various compounds sold as butter. Of the five samples examined prior to May 1, four were found to be adulterated not only by the substitution (in some cases almost complete) of foreign fats, but also by the incorporation of excessive quantities of water. A much more thorough examination of this subject during the present month has continued to give unmistakable evidence of the wholesale adulteration practiced by the manufacturers of these so-called "butters."

Respectfully submitted.

WM. N. BERKELEY,
Chemist, Superior Board of Health of Porto Rico.

SECRETARY AND TREASURER SUPERIOR BOARD OF HEALTH,
San Juan, P. R.

APPENDIX C.—*Report on cemeteries.*

Among the most obvious conditions which called for remedy, according to American ideas, and which attracted the attention of the board from the first, was that relating to burials and disinterments.

The following is a brief résumé of the conditions as they existed under the former régime:

Each municipality owned at least one cemetery. In a few cases additional grounds were allotted for the use of distant barrios, and in several districts special ground was reserved for the burial of cases dead from certain infectious diseases—as smallpox and cholera.

All the cemeteries were constructed according to much the same general plan. A certain area was walled off and divided into small plots. There was invariably considerable space for burials built as niches in thick walls, and vaults.

The locations of the municipal cemeteries have been reported in the majority of cases as good, but in many instances it will be noted that in their selection due regard was not given to prevailing winds and drainage, or proper allowance made for the growth of the town. The areas vary from one acre to 100,000 square meters, according to size of the municipality, and were usually sufficient under the old method of use. Each cemetery had, in connection with it, a place where autopsies could be performed, and also a small walled-in space where disinterred bones were heaped.

It was the custom for the municipality to either rent the burial space or sell it outright. As might be supposed, the former was the case in a majority of instances, as only the wealthy could afford the latter.

Disinterments could be made after five years on authority of the governor-general, except in cases of death from contagious diseases, when it was absolutely prohibited.

The bodies of poor people (the large majority) were usually buried without any coffin whatever, and frequently lime was introduced to hasten disintegration. Burials are commonly made within twelve hours after death.

The remains of deceased were, as a rule, removed after five years and thrown into the space reserved for this purpose. At all cemeteries there could be seen evidence of this in a pile of bones varying in size according to the age of the cemetery. Thus the ground was used over and over for burials.

It will be observed that but a small proportion of the cemeteries are of recent foundation, the majority dating from the fifties, sixties, and seventies, and at least two going back to the eighteenth century, viz: Humacao, 1793, and Rincon, 1712.

PRESENT CONDITIONS.

Practically all the cemeteries are in a condition of more or less complete ruin. The cyclone of August, 1899, in conjunction with the poverty of the municipalities, may be considered as responsible for this.

Walls have been allowed to crumble, refuse to accumulate, and weeds to grow without restraint, so that a most unsightly condition results.

In February, 1899, General Henry issued an order forbidding the continuance of the practice of disinterring remains and casting them upon the bone pile.

The area being none too large to begin with, and always perfectly inclosed, and the death rate high, the natural result was overcrowding, and this condition is reported from nearly every municipality. In connection with the neglect above mentioned, a most unhygienic condition exists.

The following extract from a reliable report on the cemetery at Utuado would doubtless apply to many others:

"The cemetery is only 300 meters from the town. This alone sufficiently indicates its bad location, for it is well known that the minimum distance between the city and its cemetery should be 500 meters. Between the town proper and the cemetery there exists a suburb, so that the cemetery is practically in the town. It is badly cared for and bodies are left to the dogs—one body already having been consumed by these animals—and moreover, according to my calculation, since its construction in 1856, no less than 40,000 interments have been made in its superficial area of 6,000 square meters. Also human remains are seen scattered on the ground. Numberless clothes of the deceased, coffins, etc., are also visible. It has no tree protection. Many pantheons and niches are destroyed."

Also note report by the inspector at Hatillo, that "the walks are white with human bones;" also from Guayama, "Condition very bad, and no burial can take place without removing remains of some one else."

These conditions, of course, could not be tolerated. As above stated the municipal government took no steps toward their improvement. Recently, General Orders

AIBONITO.

No. 69, were issued, which completely covers the subject, and after June 30 of this year every district must be provided with adequate cemetery space, managed in accordance with advanced ideas.

APPENDIX D.—*Report on hurricane.*

THE HURRICANE OF 1899.

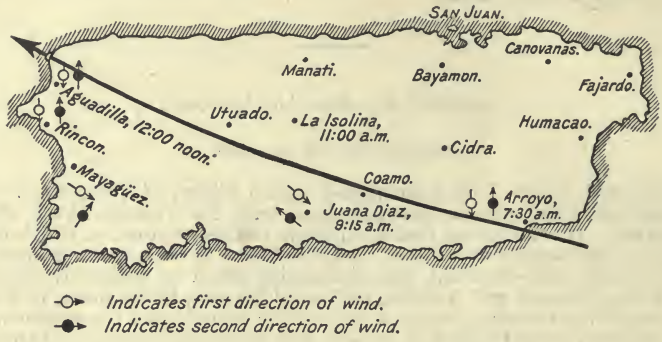
August 8, 1899, will be long remembered in the history of Porto Rico. On that day no less than 2,280 persons lost their lives from the violence of the storm that then occurred. It is estimated that in addition to this number, of which there is a nominal list, 500 persons were killed of whom there is no record. Probably more than half of these were drowned, the others being killed by falling dwellings, trees, etc. At Ponce, Utuado, and Arecibo, the loss of life was, in the main, by drowning.

Some idea of the violence of this storm may be gained from the statement following: At Naguabo, every building in the city was destroyed, except the church. The leaves and the tops of all the cocoanut palms were all blown off the trees, which remained standing resembled telegraph poles along the beach. The large Government barracks at Cayey and Aibonito were totally destroyed. Every telegraph wire throughout the island was thrown to the ground and word from the interior towns did not reach the capital for many days. At Jajuya (Utuado), whole coffee plantations slipped down the mountains into the rivers. The rain gauges were nearly all destroyed or overturned, but the following records were secured: At Adjuntas, 23 inches fell in 23 hours; at La Isalina, near Adjuntas, 18 inches fell during the storm; at San Juan the mercury fell to 27.90 and the wind reached a velocity of more than 100 miles an hour.

The following records show that hurricanes occur in Porto Rico mostly in July, August, and September:

1515, July.—Caused the death of many natives.
1526, October 4.—Destroyed greater part of city.
1527, October 4.—Destroyed greater part of city; lasted twenty-four hours.
1530, July 26.—Chiefly at San Juan.
1530, August 23.—Hurricane over whole island.
1537, July and August.—Three hurricanes.
1568, August 24.—Furious hurricane.
1571, August 18.—Throughout island.
1575, September 21.—Hurricane called St. Matthew.
1615, September 21.—Cathedral unroofed.
1738, September 12.—Terrible storm.
1740, month unknown.
1766, September 19.—Furious storm.
1766, October 7.—Severe.
1766, October 7.—Severe.
1772, August 28.—Severe storm over whole island.
1775, August 1.—Severe storm; whole island affected.
1776, September 7.—Strong storm.
1780, June 13.—A furious storm, devastating all portions of the island.
1785, September 25.—Strong storm.
1804, September 4.—Severe storm.
1804, September 21.—Severe hurricane called St. Matthew.
1805, September 11.—Severe storm on south coast.
1807, August 17.—Storm lasting three days; crops and cattle destroyed.
1812, July 23,—Hurricane touched southern part of island.
1812, August 21.—Storm in western part of island.
1813, July 23.
1814, July 23.
1819, September 21.
1825, July 26.—Severe hurricane known by the name of Santa Ana.
1837, August 2.—Storm called Los Angeles; lasted five hours.
1851, August 18.
1867, October 12.—Ruinous hurricane called San Narciso.
1871, August 21.—Light hurricane in north of island.
1876, September 13.
1893, August 16.

The map inserted herewith, published by permission of the Weather Bureau of the United States, shows course of storm of August 8.



In Porto Rico, as in other countries, many houses are built on low grounds, too near rivers and smaller streams. These, in cases of sudden rises of water, are swept away and the inhabitants drowned. Ponce is situated in the old bed of the Portuguese River, and is liable to great losses each time there is an extraordinary rise of the waters. At Utuado the loss was mainly in the Jayuya district, where the rainfall was extraordinary. In Arecibo many peons live on the river plain, which is subject to inundation to the depth of from 4 to 10 feet.

The storm left the people without shelter and without food, or but little of either. The only shelter hundreds had—for in the interior all the cabins of the poor were destroyed—was such as could be secured under spreading trees, where they lived for weeks, sleeping on the wet ground. All the fruits of the county, on which the poor depended to a great extent, were thrown to the ground, but to some extent were usable for about six weeks. The misery of people without shelter and deprived of their accustomed food is beyond description. To make matters worse, the municipal governments were almost wholly disorganized, and rendered incapable of extending any aid to the miserable people.

Such conditions could not continue without the development of sickness. It came speedily in the shape of anæmia and dysentery.

The anæmia manifested itself immediately, while the dysentery came on more gradually. The increased mortality after the storm was almost entirely due to these two diseases. The following table shows the deaths for eight months:

June	2,769	October	4,581
July	3,020	November	4,674
August	2,691	December	3,967
September	3,701	January, 1900	3,297

The mortality from these two diseases was directly in proportion to the lack of food and shelter from which the inhabitants suffered. The interior towns suffered most severely from both diseases, because in the interior there was least food and least shelter. Lares lost during the year from anæmia 646 persons; Maunabo, 290; Comerio, 167; Manati, 164; Ciales, 410; Cayey, 260; Yauco, 263; Mayaguez, 210; Barceloneta, 346; and Arecibo, 429. The greatest losses from dysentery were in Moca, 91; Bayamon, 54, Caguas, 117; Corazal, 100; Barranquitas, 128; Morovis, 38; Ciales, 328; Juana Diaz, 127; Mayaguez, 95; San German, 66; Arecibo, 146, and Hatillo, 59. By an examination of these lists and the above table, a very accurate idea will be obtained as to when the suffering was the greatest. There is no doubt at all, had not food supplies been shipped from the United States in such large quantities (over 30,000,000 pounds, valued at $1,000,000), thousands of persons would have died of starvation.

It is interesting to note that anæmia and dysentery, due to specific causes, are not universally distributed throughout the island. As conditions began to improve, both diseases began to decrease. By January, 1900, there was but comparatively little dysentery, and the amount of anæmia was much reduced.

As to preventive agencies, in case of future disasters of the same kind the following measures are suggested:

1. The immediate planting of quickly maturing crops as garden vegetables (radishes, turnips, beans, lettuce, etc.) At present these articles are unknown among the peasants, and their miserable condition is in a large part due to their deficient

RIO PIEDRAS.

diet, the greater portion of which is imported. Vegetable gardening should be taught these people at once for their self-preservation.

2. Roads should be constructed, in order that the interior may be reached with food supplies.

3. Houses should be constructed more securely. The walls are now, in brick houses, laid in mud instead of mortar. Such walls, when wet, fall down.

4. The people need education in self-government in order that in disasters they may be able to care for their needy. As it was, nearly every municipal government was paralyzed after the storm of August 8, 1899, and little or no assistance was given to anyone.

The loss of life in the last hurricane is given by municipalities. There is no record of such loss in previous storms in the island.

At Ponce, Arecibo, and Utuado the deaths were mainly by drowning, and besides those recorded below it is estimated that 500 others met their death of whom no account was obtainable; at the other places from falling houses, flying timbers, etc.:

Adjuntas	15	Juana Diaz	117
Aibonito	17	Juncos	4
Aguas Buenas	16	Lares	2
Anasco	7	Las Marias	16
Arecibo	403	Morovis	69
Arroyo	6	Mayaguez	36
Barranquitas	24	Maricao	2
Barros	70	Maunabo	26
Barceloneta	2	Naguabo	2
Bayamon	10	Naranjito	27
Carolina	1	Patillas	20
Ceales	23	Penuelas	1
Corozal	43	Piedras	9
Caguas	4	Ponce	281
Coamo	9	Quebradillas	1
Cayey	24	Rio Grande	1
Cidra	36	Rio Piedras	1
Comerio	40	Salinas	6
Guayama	10	San Juan	1
Guayanilla	35	Utuado	522
Hormigueros	1	Vieques	1
Hato Grande	12	Yabucoa	225
Humacao	43	Yauco	8
Isabela	1		

G. G. GROFF, M D.

APPENDIX E.—*Report of committee on water supply, etc.*

UNITED STATES NAVAL STATION,
San Juan, Porto Rico, June 1, 1900.

PUBLIC WATER SUPPLIES.

Four cities of Porto Rico receive their general water supplies from public waterworks, namely, Mayaguez, since about twenty-five years; Ponce, since about fifteen years; Guayama, since about twelve years, and San Juan since the beginning of last year.

All other communities depend for their water on rivers or streams, rain water, or the water of springs, which are very abundant in the interior. Whenever available the water of springs is preferred by the rural population for drinking purposes to the water of streams. The river water is generally gathered in demijohns, buckets, tin cans, or barrels, and conveyed to the consumers. According to the means of the latter, it is either filtered before use or not. In the first instance this is effected by either thick stone filters, or by Pasteur filters which furnish, if properly attended to, a very pure water. The rain water is collected in cisterns, which are either above or below ground. This water is apt to be very objectional for the reason that it carries with it dust and whatever may be covering the roofs from which it is gathered. It should not be drunk in an unfiltered condition.

The water supply of the above-mentioned four cities which have waterworks is taken from rivers. None of these cities own any part of the watershed of these rivers, and none has filtering plants in connection with its system at the present time. The only change effected in the water before it is supplied to the consumers is one due to sedimentation, which, in the case of the San Juan waterworks, is accom-

plished in seven tanks and reservoirs; six of these were constructed with the idea of using them in connection with filtering beds and the reservoir proper, which is on a higher level. The original analysis of this water shows it to be good and potable.

Very few houses are located near the bed of the Rio Piedras, which is the source of San Juan's water supply; as a result of this there are only three principal factors causing pollution of the water, namely, the washing of clothes in the stream—a universal custom on the island—the cattle, and the heavy rains, which wash into the river inorganic and organic, both animal and vegetable, matters. To avoid the two former the water of the river could be drawn about 2 miles nearer its source, where, on account of the mountainous condition of the country and the absence of habitations and cattle, the possibilities of pollution are, at least, very remote. The third pollution could only be avoided by the establishment of a filtering bed. The course of this river is only 17 miles long, the river bed in its upper 7 miles is rocky—the present source of the water is about 8 miles from its mouth. A dam built at this point brings the depth of the river to about 12 feet. The capacity of the reservoirs is about 9,000,000 gallons of water.

The conditions causing pollution of the Rio Piedras, above referred to, apply in principle to the other rivers and streams which supply drinking water to the other towns of the island. In addition to these, there are undoubtedly many instances of pollution with human excreta, which, while possibly insignificant at the present time, may become a very decided element of danger to the health of communities by their increase, in consequence of the future industrial development of the island. Other dangers at that time may arise from the establishment of industrial works in the neighborhood of such river courses.

The regulations of the superior board of health looking forward to such possibilities forbid the defiling of the streams which are the sources of domestic water supply. They forbid the discharge of contents of sewers, privies, slaughterhouses, tanneries, mills, and manufactories, etc., into them if above the source of any such supply.

With all these precautions, still greater purity of water should be procured by the establishment of filtering beds in connection with all public waterworks, whereby almost absolute assurance against microbic and parasitic diseases from the water is given.

Complaints of municipalities about pollution of rivers by industrial works have come before the superior board of health, and have been decided by that board in accordance with its regulations.

SEWERAGE AND DRAINAGE.

San Juan being the only city on the island having sewers, the drainage and sewerage here are combined into a single pipe system. The system was planned and commenced in 1894, the work of completing it was continued until the outbreak of the war. At present there are only a few streets which have not been reached by the sewer. In these parts of the city the conditions are similar to those prevailing on the island generally, so that a description of them for San Juan will include those in other parts of Porto Rico.

The main sewer pipe, having a diameter of 4½ feet, empties into the bay on the lee side of the city. The street sewers are ventilated through shafts covered with iron gratings located in the middle of the streets. At nearly every corner the sewer communicates with the gutters through intervening catch basins. The pipes are of sufficient size to carry off both the sewage and the rain water, no trouble having ever been experienced in this one pipe system.

The houses connect with the sewer generally by means of square cement and brick drains, which usually lead to a closed-in and lined cesspool, in which are received the contents of the soil pipe and of other house drains. In a few houses the drains connect directly with the sewer. In the first instance a ventilating pipe from the cesspool leads up to the roof. Both trapped and untrapped water-closets are in use, and, as a rule, there is no trapping between the drain pipe and the sewer. The open courtyards in these houses connect with the sewer through a bell trap, and unless special connections with sinks are also provided for, this court drain is used for the disposal of all slops.

The houses which have no sewer connection have vaults which are lined on the sides, but usually unlined at the bottom; consequently the liquid contents percolate into the ground, leaving the solid matter to accumulate. For other house drains there are sometimes special vaults, constructed like the cesspools. In the absence of these, the drains lead into the street gutter or into the privy vault; or, which was the universal custom before the introduction of the sewerage system, the waste water is thrown into the middle of the street. From the fact that the cesspools only retain their solid contents, they require cleaning at intervals of from a few years to as many as twelve or more.

In some parts of San Juan the oldest drainage system is still in use. In these streets the courtyard drains open in the streets, which are graded toward a central gutter. In other portions of the city ditches lined and unlined, well and poorly graded, obstructed and free, placed on the sides of the streets carry the rain water and refuse water to the sea. These parts of the city have not yet been reached by the sewerage system.

The garbage of the houses is kept in iron containers, with one of which every house has been supplied by the local board of health. These are emptied into iron wagons, which are driven about the town every morning. The garbage thus collected is thrown into the sea on the north side of the island.

The superior board of health recommended to the city authorities the erection of a crematory for the destruction of this garbage, but the lack of funds has so far postponed any action on this recommendation.

In all other parts of the island cesspools constructed as above mentioned are in use. The contents of these are frequently used for fertilization.

The regulations of the superior board of health specify the manner of plumbing of buildings, the construction of new cesspools, the periodical emptying of the same, and the manner of emptying them. They forbid the placing of privies inside of bakeries, milk depots, groceries, market houses, and other places or rooms where food is prepared and sold.

Reports about full cesspools, also about the bad condition of catch-basins between streets and sewers, giving rise to bad odors, also about defective drains, have been acted on by the superior board of health in accordance with its regulations.

PUBLIC INSTITUTIONS.

These include schools (public and private), asylums, hospitals, jails, court rooms, barracks, theaters, and other public buildings in which people congregate. The regulations covering these buildings call attention to their construction, to their ventilation, cleanliness, drainage, bathing facilities, etc. The barracks and hospitals in connection with military posts have been remodeled on sanitary lines; improvements have also been made in many public jails, penitentiaries, and in the insane asylum of Porto Rico during the time they were under military control. Wherever possible modern plumbing has been introduced; in others, earth closets have taken the place of the old objectionable cesspools. Much, however, remains to be done.

SCHOOL HYGIENE.

The principles of school hygiene have been explained in the regulations of the superior board of health. No complaints have been brought before this committee for action.

Very respectfully,

F. W. F. WIEBER,
Surgeon, United States Navy.

To the SECRETARY OF THE SUPERIOR BOARD OF HEALTH,
Porto Rico, P. R.

APPENDIX F.—*Report of committee on interior quarantine.*

The nature of the sanitary problems which have confronted the superior board of health, the conditions under which the board has labored, and its rather brief period of existence as yet have rendered a great amount of work in correcting vicious hygienic conditions impossible. This was early recognized and the board adopted the policy of establishing, first, a broad basis in all lines upon which future hygienic development might take place, afterwards devoting itself more particularly to the existent conditions.

In one sense interior quarantine might be made to include hygienic improvement of almost every description, since this branch of hygienic work included properly not only the regulation of the more common contagious and infectious diseases found within the borders of every State, but also all manner of preparation for the resistance of invasion by any one of the epidemic diseases which may at any time enter its limits. The exterior (maritime) quarantine of the island has been organized and is being conducted by the United States Government (Marine-Hospital Service), but it is a fact too often overlooked by professional men and laymen alike that quarantines—maritime, at least—are never absolute, and that no community would submit to the restrictions necessary to make them so. The question is always one of a nice balance between the greatest amount of protection to the community and the least possible interference with general intercourse. For this reason supplementary interior quarantine arrangements must be made for the suppression of the infection

which is at times necessarily introduced through the exterior quarantine. This becomes one of the broadest functions of interior quarantine, of course, and hygienic development of every description renders this problem easier of solution.

The board has attempted to meet these indications in securing legislation concerning interior quarantine, and has outlined a policy which, if developed, should secure to the island the widest measure of protection from infectious diseases and from epidemic invasions.

Reliable local boards of health have been established in all parts of the island and sanitary inspectors of the board itself placed where necessary, so that, besides making provision for general sanitary improvement, reliable sanitary information may be constantly received and prompt report made of the occurrence of quarantinable diseases. Hand in hand with this, efforts have been made to educate the masses concerning infectious and contagious sicknesses. A series of pamphlets on the infectious diseases most common in the community have been issued, both in English and in Spanish, and widely distributed. These pamphlets have in popular style given a brief account of the disease, its methods of propagation, etc., with plain and simple rules for disinfection, isolation, etc., and have carefully stressed the importance of promptly reporting the occurrence of any suspicious sickness.

Lepers have been sought out and segregated; animals suffering with diseases communicable to man ordered promptly killed, their carcasses burned, and the premises disinfected; care has been exercised over the disturbance of the streets and the reconstruction of houses possibly infected by yellow fever during the Spanish régime; burials of persons dead of infectious diseases regulated; the work of general vaccination continued; infectious diseases promptly reported and isolated, and many other things accomplished.

Finally, a broad interior-quarantine law has been prepared and published as General Orders, No. 170, of the Headquarters of the Department of Porto Rico.

By this law the following diseases are made quarantinable and placed under the control of boards of health:

Cholera, smallpox, diphtheria, scarlet fever, typhus fever, yellow fever, epidemic cerebro-spinal fever, leprosy, glanders, and oriental or bubonic plague.

It is enjoined upon every one, from physicians and boards of health to the private individual, promptly to report the occurrence of any of these diseases. General regulations are made as to the proper treatment and isolations of the sick and the quarantine of the premises; the burial of the dead; the disinfection of a house, provision having been made also for the disinfection of a house or room after a death from tuberculosis, one of the scourges of the island. Vaccination is made compulsory, and, finally, yellow fever, a disease from which Porto Rico has in times past suffered most severely, and to an invasion of which she is most frequently exposed, has been made the subject of an elaborate set of rules and regulations fixing in plain language the proper management, isolation, etc., of this disease, which for many years, under the Spanish régime, claimed a high annual mortality.

With this law, and other minor provisions bearing on the same subject, it would seem that in time a system of interior quarantine may be gradually developed which will be in accord with the most advanced hygienic ideas, and which will afford to the island the amplest protection possible against indigenous as well as exotic diseases.

C. H. LAVINDER,
Assistant Surgeon, Marine-Hospital Service,
Chairman Committee on Interior Quarantine and Disinfection.

APPENDIX G.—*History of sanitation in Porto Rico.*

It is only in compliance with the instructions of the superior board of health that I undertake to make this report on the sanitary history of Porto Rico, as I am aware of the difficulties of the task, not only for personal reasons, but on account of the absence of archives from which information might be gathered for a complete work.

Let these lines, therefore, be regarded merely a compilation of the incomplete data on the subject to be found in the books and circulars, which, though having no special connection in themselves, may serve as a basis for a thorough study of the matter by one better adapted to the work than myself.

DESCRIPTION OF THE ISLAND.

The island of Porto Rico, known to the aboriginal Indians by the name of Borique, or Borinquen, was discovered by Columbus during his second voyage, on the 19th of November, 1493, and was explored and conquered in 1508 by Ponce de Leon, who was the first governor of the island. It is the smallest of the Greater Antilles and is

about 100 miles long by 40 broad, or about 3,000 square miles. There is a chain of mountains running through the center of the island, branching off here and there on both sides toward the sea and forming fine valleys which are watered by over thirty main streams, of which a few are navigable a short distance.

CLIMATE.

The climate, though tropical, is not excessively warm, the average temperature being 80°, but on specially hot days in summer the thermometer occasionally reaches 90°. During the cooler months the temperature descends to about 66°. Heavy rains occur frequently during the year, and as the greatest rainfall is in the fall and summer the great atmospheric humidity during the warm season may probably account for the absence of cases of sunstroke.

The northeast trades prevail the greater part of the year, refreshing the temperature agreeably. The north winds, which are common in the winter months, are sometimes very strong. South and west winds are unusual, except in summer, and are always accompanied by great heat.

Hurricanes occasionally cause much damage to life and property during the months of July, August, September, and October, though seldom as severe as the recent one on August 8, 1899.

It is only natural to explain the excellent health enjoyed on the island, as compared with other tropical countries and amid conditions totally at variance with the primary sanitary precepts, as the consequence of its exceptionally mild climate and to the frequent rain and thunder storms that wash out the streams and purify the land, whilst occasional hurricanes leave the atmosphere pure and clear, and lastly, but not least, these conditions are improved by the bright sunshine of which so much is enjoyed.

Typhus and other tropical scourges are unknown. Typhoid fever has never been epidemic and only isolated cases occur. Scarlet fever is very rare, and the measles, mumps, and whooping cough are generally so mild that patients recover with the simplest treatment, no sequelæ occurring.

The great epidemics that have swept the island have been smallpox, in 1804, 1818, 1877, and 1880; and cholera morbus in 1855. Yellow fever has been imported in several years. Syphilis is also an imported disease.

The natural climatic ailments are malaria in all its forms, rheumatic, catarrhal, and hepatic diseases, diarrhea, dysentery, tuberculosis, and diseases common to all countries.

There is no doubt that the instinct of self-preservation, which has always existed in this country as in all others, has led to the means of obtaining health and prolonging life, and the Indians had their "buhiti," or "medicine men," who were also in charge of the religious rites, and whilst they did not understand the prophylaxis of disease, it is certain that through their rites and ceremonies and other superstitions, they endeavored to relieve pain and sought the means of lengthening life.

1521.—The first sanitary measure of which there is any record was with reference to the transferring of the seat of the government to its present location from the mangrove marshes of Pueblo Viejo on the other side of the bay.

This was done at the instance of Rodrigo de Figueroa, who, on July 13, 1519, wrote, urging that the city of Caparra should be removed to the island opposite, which "was the best location in the world." Caparra was the capital of Porto Rico, and was founded in 1508, but, as stated, was abandoned in 1521, owing to the unhealthfulness of its position and surroundings.

1768.—We find nothing further until 1768, when, by royal charter of March 3, the superior board of health was established in San Juan to inspect slavers and other vessels arriving from foreign ports.

1804.—There were regulations in force at this time, established probably in the interval from 1768, as we find a letter from General (and Governor) Ramon de Castro approving the plan of Dr. Francisco Oller for the preservation and propagation of vaccine. This shows that smallpox existed in the island. It appears, however, that said plan was not carried into effect—probably forgotten, as the board passed a resolution in 1818 appointing Dr. Vargas to report on vaccination and the means of preventing the spread of smallpox.

1813.—By a decree of the governor-general, dated June 13, 1813, local boards of health were ordered to be formed in each municipality, and on the 23d of March, 1804, the local board of health of San Juan commenced its work under the chairmanship of the alcalde.

In accordance with a royal decree of November 10, 1813, the city council of San Juan caused a report to be made on the "black vomit" (yellow fever), which comprised not only the origin, cause, character, symptoms, development, and course of the disease, but went into the matter extensively, stating when the stage of the great-

est danger of contagion was known to exist, as well as the natural and suspected agents of infection, treatment of the disease, and its prophylaxis.

1814.—In the "Bando de Policia y Buen Gobierno" (police ordinance) there were included the sanitary duties, which the police were obliged to enforce, such as cleaning of streets and back yards, removal of garbarge, cleaning of slaughterhouses, etc.

A slaughterhouse was built in the same year by order of Governor-General Lemeri.

1816.—On the 17th of June, 1816, a chair of medicine was established at the military hospital in accordance with a royal decree of January 31, under the direction of Dr. Jose Espaillat.

The military hospital on San Sebastian street was founded by Bishop Friar Manuel Gimenez y Perez as a charity hospital, with his own private funds, in 1774, but it was later ceded to the Government because the existing military hospital, in use since 1615, was small, and its position adjoining the governor's residence was inconvenient and embarrassing for the defense of the city. The bishop, however, made it conditional that the city's poor should be received in it.

1816.—About the month of October, 1816, a malignant fever epidemic caused many deaths in Ponce, and the neighboring towns were obliged to isolate themselves.

The governor sent Dr. Arevelo to Ponce to investigate the disease, but I have found no data with reference to the measures adopted to stamp out the scourge, and though no symptoms are described, there is every reason to believe that it was yellow fever.

1818.—In consequence of several cases of smallpox at Manati and San Juan, Dr. Vargas was instructed to make the report already referred to.

1824.—A circular dated November 2, 1824, was published embodying a report of Dr. Vargas of July 24 of the same year, giving the measures to be adopted in cases of poisoning by land crabs.

1830.—In August boards of health were ordered to be established in all towns and villages.

1832.—A resolution of the board of health with reference to the disinfection of vessels was adopted by the Government, and special instructions were issued for the inspection of vessels trading with St. Thomas.

1837.—A circular dated December 31, 1837, was issued by Gen. Miguel Lopez Bano commanding all local authorities to report on the state of health of their respective districts. A circular was also published making vaccination compulsory for persons attacked by smallpox and those attending them.

1838.—Circular No. 459 was issued by which vessels must be inspected on their arrival in port.

1838.—Upon the recommendation of the superior board of health the destruction of all manchineel trees, on account of their poisonous properties, was ordered.

1839.—The royal subdelegation of medicine and surgery was established, composed of three members and a secretary dependent directly on the home minister in Spain. It was an advisory board for the Government and all others in authority, with reference to matters pertaining to the medical science. Its duties were to guard against the fraudulent practice of the medical profession by unauthorized persons, by keeping a register of all physicians and surgeons duly licensed, and to adjust disputes between medical men and the authorities. This board ceased to exist on the 1st of July, 1899.

1839.—By royal charter of the 14th of May, 1839, a royal subdelegation of pharmacy was formed with powers to establish regulations for the granting of licenses and the fixing of fees for the same.

1840.—Circulars 3, 151, and 152 of this year contained instructions regarding vaccination.

1841.—Regulations were made for the marine hospital inspection, and several circulars were issued with reference to quarantine measures.

1846.—The keeping of swine within the cities and towns having been declared a public nuisance, and the cause of many diseases and of leprosy in particular, Circular No. 22, of the 28th of February, forbids this obnoxious custom, and further provides for the examination of hogs killed for sale.

The superior board of health sent a report to the governor-general with reference to the resolution passed by the local board of Ponce in May, 1845, by which the sale of pork was forbidden as a prevention of leprosy, and also on another resolution ordering the destruction of mango trees, which the same board considered the cause of fevers.

1848.—By royal order of March 19, 1848, regulations were established for the exhumation of corpses in cemeteries.

1853.—The board of health published recommendations and advice in case cholera morbus should appear on the island.

1854.—There being an epidemic of cholera in St. Thomas strict quarantine was established against that island, and precautions were taken such as the cleaning of streets and yards, disinfections, and the examination of food products.

1855.—Cholera broke out at Naguabo and general precautions were taken to prevent the disease from spreading. Persons dying from the disease were to be buried in special cemeteries, and in San Juan these were prepared on the batteries of Santa Rosa and Santo Domingo. The market place was closed, crowds were prohibited, and begging from door to door was forbidden. A board of relief was appointed to provide for the poor.

The superior board of health instructed Dr. Vargas to prepare and have published a short description of the disease, its prevention and treatment.

General Lemeri issued an order to be observed by all slaveholders during the epidemic.

1857.—A circular was issued by General Lemeri on January 8 ordering the discontinuance of burials in the cholera cemeteries of persons dying of other diseases.

1863.—Royal order changing certain dispositions contained in the royal orders of 1845 and 1848 respecting the exhumation of corpses.

1865.—On April 11 measures were adopted by the local board of health to prevent the spread of diphtheria, among which there was an order for disinfection of houses where there were cases of the disease. A regulation was also passed governing the cleaning of streets and sewers, removal of garbage, etc., as a precaution against contagious diseases.

There was an epidemic of yellow fever, and measures were taken to check the disease.

1866.—On the 23d of June, 1866, my father, Dr. Francisco J. Hernandez, published a long essay on hygiene in "El Fomento de Puerto Rico," pointing out the menace to the community at large of the way the poor people lived, huddled together in the basements of houses lacking light and ventilation, and urging the Government to provide for the extension of the city, thus preventing the crowded condition it was in. He also severely criticised the system of sewerage, and advised that water-closets and other outlets from houses should be connected with the sewers, which should be provided with a water supply to flush them regularly. This would do away with the cesspools that exist even to this day. He received the congratulations of the Government for his essay, and soon steps were taken to remedy the defects he pointed out.

1872.—The "diputación provincial" intended to build a leper hospital, and, as funds were not available, it finally accepted the motion of Deputy Dr. Francisco J. Hernandez, which provided that each municipality should isolate and care for the lepers in its district until the original plan could be carried out.

1875.—Several cases of smallpox were originally traced to Cuban arrivals, and measures were adopted to prevent the disease from spreading. Vaccination and revaccination were among these measures, and the local board urged the building of a smallpox hospital.

1877.—There was a yellow-fever epidemic during this year which led to special precautions in San Juan. The streets were cleaned, the sewer manholes on Fortaleza, Tanca, Tetuan, San Justo, and San Francisco streets were closed, and dirty water was not allowed to be thrown into the gutters before 12 p. m. Special regulations were made ordering the immediate burial of persons dying from the disease and the disinfection of houses wherein such persons died.

1878.—The yellow-fever epidemic continued for the greater part of this year.

1879.—Certain reforms were introduced into the regulations governing hospitals.

1880.—A smallpox hospital was built on the Santo Domingo Battery. This building was burnt by order of the United States Government in 1899, and the military ice plant is at present located on the same spot.

1881.—During this year a newspaper relating to matters of hygiene was started under the style of "Eco Medico-Farmaceutico."

1882.—In May, 1882, the "diputación provincial" contracted with Dr. Antonio Sierra y Carbo for the establishment of a vaccine station or the sum of 3,000 pesos and a yearly subsidy of 7,500 pesos.

1883.—La Salud, a periodical for the purpose of ingrafting into the people the knowledge and principles of hygiene, was, in this year, founded by Dr. Francisco del Valle.

1884.—The vaccine service was this year awarded to Dr. Jose Elias.

1886.—A pamphlet on hygiene published by Dr. Francisco del Valle was declared by the "diputación provincial" a text-book for use in the schools.

1887.—The vaccine service was awarded to Dr. Pedro S. Caimary for 4,000 pesos.

1888.—The subsidy of the vaccine station was reduced to 2,400 pesos.

1891 to 1892.—Dr. Elias again took charge of the vaccine service, superintending same until 1898. It was then awarded to Dr. Jose Rodriguez Castro, who held it until the "diputación provincial" was discontinued.

1894.—The city council passed resolutions for the establishment of a special police

code governing prostitution. This was carried into effect in 1895 and a hospital for diseased women was established.

1898.—At this time, as will be noted, there existed in Porto Rico:

First. A superior board of health, of which the governor was the president, and the other civil and military authorities, the chief surgeon of the army and the president of the subdelegation of medicine and surgery were ex-officio members.

Second. Local boards in all cities and towns presided over by the alcalde and composed of the municipal physicians, some members of the council, and the quarantine service physician. Matters pertaining to local sanitation were passed upon by the boards and approved by the governor.

Third. The subdelegation of medicine and surgery and of pharmacy.

Fourth. A military hospital.

Fifth. The municipal hospital on the Morro parade grounds, known as the "Hospital de Santa Rosa." It is a frame building and in every way deficient.

Sixth. The female charity hospital of "La Concepción," with accommodations for twelve patients.

Seventh. A female hospital for the treatment of venereal diseases.

1899.—Under General Order No. 91, of the headquarters of the department, the superior board of health was constituted July 1, as follows: Col. John Van R. Hoff, president; Maj. George G. Groff, secretary and treasurer; Surg. F. W. F. Wieber, U. S. N.; Surg. Arthur H. Glennan, U. S. M. H. S.; Dr. Gabriel Ferrer; Dr. Ricardo Hernandez.

The work done by this board from July 1, 1899, to May 1, 1900, was the following:

The adoption of a sanitary code for the regulation of the local boards and inspectors.

The by-laws governing the local boards were passed.

Circulars No. 1, 2, 3, 5, and 6 were issued with reference to typhoid fever and dysentery and precautions to be taken to avoid same; instructions to physicians respecting quarantinable diseases; precautions to guard against dysentery, anæmia, and diphtheria; the establishment of a vaccine station producing a sufficient quantity of lymph for the whole island; the appointment of an examining committee for physicans, apothecaries, dentists, practicantes, nurses, and midwives.

A chemical laboratory was established for analyzing food products and liquors.

The board has given its attention to all matters brought before it by the Government and insular officials. It has issued licenses to physicians, and others examined, who practiced their professions here under the Spanish rule. The management of the orphan and insane asylums was in charge of the board for some time. Plans were made for the erection of an improved leper station. The secretary has reorganized and kept the register of practicing physicians, etc., in a most practical manner and reference to same is now easy. This has been a matter of no small labor and deserving of the highest credit.

A statistical record of deaths and diseases causing same is kept, with the cooperation of local boards of health, inspectors of hygiene, and private physicians, who have been requested to furnish data respecting quarantinable and other diseases.

The foregoing is practically all the information I have been able to obtain, though I know that in matters of hygiene more has been planned and done, such as the tearing down of the walls of San Juan by the Spanish Government, and it was intended that the lands adjoining the city proper should be sold to promote the growth and extension of the city, thus avoiding its present overcrowded state.

The San Juan waterworks, which supply San Juan, Santurce, and Rio Piedras with water.

The remodeling of the sewerage system carried out in 1884, since when cesspools are in connection with the sewers.

At one of the meetings of the "Sociedad Economica de Amigos del Pais" a resolution was passed as proposed by Dr. Jose E. Saldana recommending the establishment of a bacteriological institute by the Government, and the matter was under consideration.

In Mayaguez a few private physicians attempted to establish such an institute and I do not know why the idea was dropped.

Recently Dr. Rafael del Valle requested the aid of the United States Government to start one here, and his request was favorably indorsed by the superior board of health, but lack of funds prevented the matter from going any further.

There has also been an improvement in the selection of schoolhouses and these at present conform with the scientific requirements as regards size, light, and ventilation.

I have no doubt that the attention now given by the Government to matters of sanitation and by the increasing efforts of the board of health, this island will not only be the loveliest, but the healthiest place on earth.

R. H. HERNANDEZ, M. D.

SAN JUAN, P. R., *May 1, 1900.*

APPENDIX H.—*History of the subdelegation of medicine and surgery.*

[Compiled by Solomon Dones, former professor in the Institute of Higher Education of Porto Rico.]

The first duty imposed upon the subdelegation of medicine and surgery of Porto Rico after it had been established by royal order of February 28, 1839, was the drawing up of its regulations in accordance with the provisions of said royal order. This being complied with, the regulations were presented to the governor-general to be forwarded to the Government at Madrid, whose approval was necessary.

In spite of frequent requests by the subdelegation to the supreme Government, through several successive governors, approval was not obtained until 1849. The governor then resolved to have the subdelegation revise its regulations with a view to placing them more in harmony with its proper functions, or to draw up another set more applicable to existing conditions; whereupon the subdelegation appointed a committee to draw up new regulations, which, after being duly approved by the whole body, were sent to the governor of the island on December 27, 1849, to be approved and authorized by the sovereign.

Until this time the subdelegation was not able to perform its duties as set forth in the royal order instituting it, but found itself confined to examining and qualifying those who solicited the right to practice medicine and surgery from the captain-general, being subject to another royal order, which was brought into effect on the 4th day of August, 1841, "to repress the multitude of quacks on the island." In this way many titles, as medico-practico, surgeon-practico of the second and third classes, were issued, permitting thereby just what it was desirous of remedying. In a communication addressed to the superior Government at Madrid it was requested that a school of medicine and surgery be established, "because in this way the youths of the country would avoid going to the United States to obtain instruction, from which place they came with ideas and habits of immorality, affecting both religion and state, of which facts there are many proofs."

The personnel of the subdelegation consisted of three professors of medicine and surgery and one supernumerary, acting as secretary. They were named by the sovereign upon the recommendation of the governor.

The following were the duties of the subdelegation, according to the regulations of 1849:

First. To have the entire supervision of the practice of medicine, observing that no person practices without proper authorization. To carry out this obligation it was authorized to visé the license of those physicians already in practice and to make a copy of the same in the registry book.

Second. To regulate the fees of physicians for any expert services they may have rendered to the authorities, or to fix the fee in any particular case when the question has been submitted for judicial determination.

Third. To make regular reports on all subjects over which it has jurisdiction, and reports in special cases when requested by the courts of administrative bodies.

Fourth. To select the names of three doctors from each municipal district; these to be presented to the governor, who will appoint as titular physicians one for each town from the respective groups.

Sixth. To have preference over other members of the profession when they desired a position involving compensation.

Seventh. To receive payment for consultation, reports, and other professional services rendered upon the request of the authorities and courts in affairs of justice in civil as in criminal cases.

Eighth. To examine all physicians with foreign diplomas to enable them to practice in this country.

Ninth. To examine and issue licenses to practicantes, bloodletters, midwives, and chiropodists.

Tenth. To publish the penalties imposed upon those who had practiced their profession without strict compliance with all laws and regulations governing the subject.

Eleventh. To make out the estimate of expenses.

Twelfth. To see that its regulations are complied with.

On the 29th of May, 1866, the governor-general authorized the subdelegation of medicine and surgery to examine and issue diplomas to practicantes. Another order of similar character was issued permitting the subdelegation to issue licenses as dentists to practicantes.

Because of the large number of these secondary licenses issued an order was published on February 28, 1899, declaring all licenses issued to practicantes as dentists of no value, and stating that persons possessing such licenses should return same within the period of ten days without fail.

As this matter was of marked importance to the professional class referred to, we give herewith a copy of said order:

First. The subdelegation of medicine and surgery is authorized, in accordance with orders of the Spanish Government dated May 29 1866, to grant certificates to practitioners in minor surgery, provided the requirements in said order shall have been fulfilled.

Second. All certificates of surgeon dentists issued by the said subdelegation understood as entitling the holders thereof to perform the duties of doctors in dental surgery, not being authorized by said Spanish orders, are hereby declared null and void.

Third. The holders of these certificates shall return them within ten days to the subdelegation of medicine and surgery, where they will be exchanged for certificates of practitioners in minor surgery.

Fourth. Those who at the end of the time indicated shall not have exchanged their certificates, and continue practicing the profession in spite of the orders given, shall be called up by the mayors of the respective places, who will compel them to deliver the certificates, and besides levy a fine of $50 on every certificate holder.

Fifth. The practitioners of dental surgery shall be allowed to practice only under the direction of a doctor in dental surgery.

The subdelegation prescribed and provided for the duties of its members.

The secretary was ordered to keep six books:

First, for the recording of the actions of the subdelegation.

The second, for the records of its employees.

The third, for the registration of examinations to which foreign physicians were obliged to submit.

The fourth, for the record of the physicians of the island, literally copying their licenses.

The fifth, to preserve the communications of the board, keeping separate books for those letters received and sent.

The sixth, for the noting of minor crimes committed on the island by the different intruders or charlatans.

Although these books were, of course, extremely important, they were kept in a very unsatisfactory manner.

For the better compliance with the vested duties of the subdelegation, a physician was appointed in each of the seven departments into which the island was and is yet divided. He was chief of his department, under the name of "coadjutore," and he was expected to see that the regulations were complied with in his district, to examine the titles of those who practiced or desired to practice medicine and surgery, keeping a current record of all those actually in practice, and to note any case of violation, informing the subdelegation of such. Said coadjutores were named previous to the approval of the regulations of the subdelegation, in virtue of an authorization from the governor on January 26, 1846. From July 22, 1868, they were known as subdelegates of the department, and regulations were drawn up setting forth their duties. They were obliged according to these regulations—

First. To see to the strict enforcement of the laws, regulations, royal orders, and circulars.

Second. To observe that no one practiced the medical profession, whether partially or wholly, without the required license, and that doctors should practice only within the limits defined by their licenses.

Third. To prosecute all persons who disobey the laws governing the practice of medicine or relating to the hygiene and public health of the district.

Fourth. To examine the licenses of physicians in their respective departments and forward a copy of the same to the subdelegation.

Fifth. To invalidate the seals and signatures of deceased physicians in their respective departments.

Sixth. To form a complete list of those physicians residing temporarily in their respective departments, of those who permanently practice, and of those dead, making any note that may be of interest.

Seventh. To execute the commissions given them by the authorities and to make reports as requested.

Eighth. To secure from the titular physicians of their respective districts a monthly report similar to that forwarded to the municipal council or the boards of the locality, giving the number of sick which they have attended during the month, stating age, sex, and color, and also the disease of the patient and the final result obtained. They were always obliged to report the appearance of any contagious disease and the principal circumstances connected with same. This was to be done with the greatest haste possible.

Ninth. To solicit of the other physicians similar information as given by the titulars.

Tenth. To forward to the subdelegation the originals of the aforesaid communications, exact copies of same to be retained.

Eleventh. If the information given by the physicians was not sufficiently clear, more details were requested, and an account of the investigations were sent to the subdelegation.

Twelfth. To make an examination in their respective districts of the progress of vaccination, to see that it was continued, and make a report on same every three months, with recommendations.

Thirteenth. To obtain the aid of the local authorities when necessary to secure the better enforcement of the laws and regulations.

Fourteenth. To at once report the violation of any law of public health, inclosing proofs of the statements made in such reports.

All these duties had to be complied with, and no remuneration for the service was made. For this reason their performance was never completely secured, and it is known that even after circulars were repeatedly issued the assistance of the government was necessary to compel the delegates in the respective departments to properly perform their obligations.

The right to register the diplomas of physicians was later given to the alcaldes, to whom the physicans were obliged to present their diplomas for registration in the municipal registry. In this registry no diploma could be entered unless the owner was authorized to practice by and registered with the subdelegation or governor-general. The alcaldes were obliged to inform the governor of any violations that they might observe, but, strange to say, the principal violations were committed by the alcaldes themselves, who accepted diplomas that had never been seen by the subdelegation, and the fact of this abuse was never communicated to the authorities. The result was that doctors practiced for some ten or twelve years, having duly presented their diplomas to the alcaldes, but who were wholly unknown to the officers of the subdelegation of medicine and surgery.

Among the more important prerogatives possessed by the subdelegation was the power to examine physicians who were graduates of Spanish universities, approving their diplomas in order that they could practice their profession on the island. We would naturally suppose that all such physicians from Spanish universities were subject to such examination. But this was not so, for in virtue of the decree of February 6, 1869, declaring sufficient those diplomas from foreign colleges, many persons were authorized to practice, while others passed examinations to comply with the requirements of the royal order of December 10, 1879.

The subdelegation was not, nor should it have been, held responsible for this variability. The fault was in the existence of two conflicting laws on the same subject, and the facility with which the governor could apply the one or the other according to the special circumstances. Still further, doctors from foreign universities were authorized by the general government to practice throughout the island, and there exists no evidence showing that the subdelegation made any protest in the matter.

There are at hand copies of but few reports which it made. They are in reference to its having settled misunderstandings between physician and patient, or between the courts and physicians, in regard to differences arising as to payment for professional services.

It is known that the subdelegation reported on various occasions on medico-legal questions, and also reviewed some of the work of experts in forensic medicine, and received many congratulations and encouragements. But no copies of this work were retained by the subdelegation, and the originals were attached to the documents leading up to the action and remained on file at the different judicial centers where these affairs were afterwards given publicity.

These reports were made on request of the Government when it desired to obtain the opinion of the subdelegation on matters of health, medicine, or any other subject coming within the sphere of its work. Its reports were always absolutely impartial.

With respect to the appointment of president and members, neither the letter nor the spirit of the regulations was always observed; indeed it is well known that appointments made by the central government, far from taking these into consideration, were often actuated by motives of partiality or profit. Oftentimes those who could not agree with the attitude taken by the Government were obliged to resign in order to maintain their professional dignity. In later years, more especially about the time of the change of sovereignty, politics became a leading feature in the work of the subdelegation, and as a result the regulations were most lamentably violated.

There exists no data by which we can learn of the programme used in the examinations of physicians and surgeons. Some physicians were authorized to practice their profession in but one part of the island only. The practice of others was confined to particular towns. The fees were variable for these licenses, and the licenses had to be renewed at stated periods.

Among the various reports made by the subdelegation of medicine and surgery one is found in which the table fixing the rate of fees to physicians was modified. This specified the diseases and operations, and stipulated the charge for each, with any

variation allowed for unusual circumstances of time and place. It prohibited the use of magnetic fluid or magnetism. The subdelegation regulated the use of poisonous substances in June, 1846, and matters relating to the ethics of the medical profession. In 1855 it suggested that a certain number of physicians in municipalities, where there were no titular physicians, should be appointed to care for the sick poor, payment to be made by the Government in accordance with the adopted rates. It instructed physicians in their duties in the time of epidemics, and made other reports of value.

From February 10, 1847, date of first entry of examinations, to the extinction of the subdelegation and transfer to the superior board of health, it examined:

Foreigners, revalidations of title	99
Dentists, revalidations of title	32
Practicantes, revalidations of title	146
Midwives	12
Chiropodist	1
Total examinations	290

In the registry book of the General Government, together with the book of registry of titles of the subdelegation, there are found the following entries:

Doctors in medicine and surgery	121	Surgeon-medicos, third class	1
Licentiates	273	Surgeon-practicos, third class	1
Surgeons	1	Medico-practicos	1
Authorized but not doctor	1	Surgeons, third class	4
Surgeon-practicos	9	Surgeons, second class	4
Surgeon-mayores	2	"Fracultativos habilitados"	1
Surgeon-medico-practicos	5		

There are found 366 physicians registered with the subdelegation up to the month of July, coming from the following universities:

Barcelona	88	Michigan	1
Baltimore	2	Madrid	70
Berlin	1	Bellevue Hospital College, New York	18
Brussels	4	Naples	3
Cadiz	4	Oporto	1
Caracas	16	Pamplona College	2
Canada	1	Paris	22
Edinburgh	2	Pennsylvania	3
Granada	3	Pisa	3
Geneva	1	Rome	1
Habana	17	Santiago	25
Heidelberg	1	Sevilla	24
Holland	1	Institute of St. Domingo	1
Jefferson College, United States	5	Turin	2
Riell	1	Valencia	8
London	1	Valladolid	7
Louisiana	2	Wurzburg	1
Long Island College	1	Vanclure	1
Montpellier	5	Zaragoza	7
Martinica, College of	1	Of unknown centers	19

It should be understood that only 16 of this number were found to be registered with the General Government. The title of the medico-practicos, etc., were issued by the subdelegation, and entered in a book very badly kept, under the charge of the secretary of the Spanish Government.

The following is a classification of same in accordance with their nationality:

Porto Ricans	209	Italians	3
Spaniards	114	Danes	2
Frenchmen	21	Granadians	1
Cubans	11	Hollanders	1
Venezuelans	9	Englishmen	1
Americans	3	Unknown nationality	54

The following is an academic classification of those dentists whose titles are found to be registered with the subdelegation, numbering:

Doctors	20
Surgeon-dentists	4
Dentist-mecanicos	1
Dentists	16

The number of practicantes registered with the subdelegation or with the Government is 145:

Examined by subdelegation	140
From University of Sevilla	1
From University of Barcelona	1
From University of Habana	1
From University of Madrid	2

There were 17 midwives registered with the subdelegation or the Government:

Examined and titled by the subdelegation	12
From colleges of Madrid	2
From colleges of Habana	2
Places of graduation unknown	1

It is but natural to suppose that all the professional people of the island have not been included in the list here shown, and, as we have already seen, this is due to the fact that some physicians presented their titles to the General Government and not to the subdelegation of medicine and surgery, and inasmuch as the book under the charge of the secretary has been lost, there exists no data relative to the registrations from the 20th day of December, 1876, up to the 20th day of March, 1883, and the number lacking is 112, of which some have appeared for registration with the superior board of health.

Since the organizing of the superior board of health 174 licenses have been issued to various physicians. Of this number 127 titles pertained to physicians who had been registered with the subdelegation or the General Government; 39 secured licenses under the "toleration" clause of the order, by showing their diplomas and submitting evidence that they had practiced on the island previous to the American occupation, and 9 were examined. Those who became licentiates by "toleration" and by examination came from the following universities:

Barcelona	5	New York, Bellevue H. M. C	4
Burlington, Vt	2	Long Island College	1
Brussels	1	Paris and New York	1
Canada	1	Pennsylvania	1
Caracas	2	Pennsylvania and Caracas	1
Dublin	1	Mexico and Habana	1
Habana	1	Harvard	1
Michigan	1	Santiago	4
Madrid	10	Zaragoza	1
Montpellier	2	Valencia	1
Muchen and New York	1	Place of graduation unknown	4

Thirty-five dentists have obtained licenses for the practice of their profession, 18 of whom registered their titles, 14 had diplomas or licenses and proved their practice on the island previous to its occupation by the Americans, and 3 were examined.

The following is the number of titles issued to practicantes, reaching 74:

By right acquired from previous practice	62
By examination	4
By certificates, etc., from alcaldes, doctors, etc	8

The number of midwifes who obtained their licenses is 12, as follows:

By examination	1
From University of Caracas	1
In virtue of certificates as to aptness, etc	3
For previous rights acquired	7

One license was issued to a person as nurse, the applicant having presented all the necessary certificates as to his proficiency, character, etc.

NOTES.—In 1816 a medical instruction department was established in the military hospital, which was taken charge of by a professor, who was obliged to give all the necessary instruction and to act in the capacity of chief physician. But this gentleman could not conveniently attend to so difficult a charge, and in 1845, feeling that said department was of no benefit to the country, the governor-general ordered its discontinuance, establishing in its place a school of "surgeon-medico-practicos," composed of four professors. After the students had completed their course at the school, they could present themselves to the subdelegation of medicine and surgery and be given the right to practice. This was the origin of the medico and surgeon practicos.

In 1875 it was declared by the subdelegation that according to the data found on file it had to its credit 30,000 pesos.

In 1881 it was proposed to establish an academy of medical, physical, and natural sciences, the subdelegation of pharmacy to be included in same, and to "come under the direction of the captain-general." This intention was carried into effect.

Those practitioners of medicine who had proved that they had practiced their profession for six years were authorized to continue in their practice.

Whenever a physician with a foreign diploma desired to enter into a competitive examination to obtain any public office which pertained to his profession he was obliged to solicit same from the sovereign after approval by the subdelegation; but sometimes the municipal councils appointed for their service foreign physicians, and the governor gave approval or disapproval to the appointment, according to the case.

In 1875 the subdelegation of medicine and surgery determined to regulate the practice of midwifery, because it had become evident that this work was incompetently performed; whereupon the Government was petitioned that a portion of the Asilo de Beneficencia be dedicated to the assistance of poor women in their confinements, and where, under constant medical supervision, those desirous of studying the art of obstetrics could do so.

On July 18, 1899, a general order was published (No. 102) in which was clearly and precisely stated the duties of the superior board of health; and to our view Paragraphs IX and X of said order are of great importance, as follows:

"To prepare regulations governing the admittance of persons to the practice of medicine and surgery, pharmacy, dentistry, midwifery, embalming and undertaking, and to enforce such regulations as are adopted by the government of the island.

"To inquire into and report upon violation of laws governing the purity and wholesomeness of foods, drinks, drugs, and medicines. To submit, through the governor of the island, regulations to control offensive and dangerous occupations, and to report upon and make recommendations regarding any special sources of danger to life or person."

It will be seen in the first of these paragraphs that the same faculties possessed by the subdelegation of pharmacy and subdelegation of medicine and surgery were vested in the superior board of health, without any restrictions, not alone in all that relates to the various courses indicated, but as well to the regulating of interments, funerals, and burials, giving full instruction as to the manner of procedure, etc.

Regarding the second paragraph, all matters relating to sanitation come within its jurisdiction, and it is required to give any information upon such matters requested from official centers. In short, with but few exceptions as to form, all the power, obligations, faculties, etc., possessed by the now extinct subdelegation and the board of health are conferred upon the superior board of health of Porto Rico without the humiliating, "trampling-under-foot" aspect of former times.

APPENDIX I.—*History of the subdelegation of pharmacy.*

[Compiled by Solomon Dones, former professor in the Institute of Higher Education of Porto Rico.]

The royal subdelegation of pharmacy was established by virtue of the royal order of March 14, 1839. The regulations of August 13, 1841, determining its functions, having been approved, were communicated to said organization on the 15th of October of the same year. Its establishment was ordered to take effect immediately, with the authority to supervise all pharmacies and drug manufactories on the island every two years; to arrange the studies of applicants in pharmacy, to verify the examinations of these, and to issue the corresponding diplomas, the fees being paid accordingly.

Previous to the establishment of the subdelegation of pharmacy the practice of this branch had reached the highest point of confusion and disorder, because persons who were absolutely ignorant of the most rudimentary knowledge of so delicate a science were licensed as pharmacists. This constituted a source of great danger to the public health, and formed a constant menace to the interests of humanity. The subdelegation abolished this prevalent practice, placing the studies of pharmacy on a more scientific basis, and thereby secured a better standard for the practice of same.

ORGANIZATION.

The following were included in its organization:

First. Three professors of pharmacy, appointed by the governor, to be of high standing and "loyal to Her Majesty the Queen and her Government."

Second. An inspector, who also acted in the capacity of secretary as well as fiscal, to see to the strict observance of the regulations.

The subdelegation in its special educational functions acted under the general direction of the national department of education, representing the same throughout the island of Porto Rico and using a seal with the words "Royal subdelegation governing pharmacy."

REGULATIONS.

In the regulations of 1841, later modified to meet the requirements of newly introduced customs upon various propositions, the following duties were vested in the subdelegation:

First. To inspect drug stores in all parts of the island every two years.

Second. To examine applicants for licenses in pharmacy.

Third. To observe that pharmacists strictly complied with the duties of their profession.

Fourth. To prevent the establishment of drug stores the owners of which had not complied with all the legal requirements with reference to their professional competency.

Fifth. To observe that druggists sold medicinal articles subject to the then existing pharmacy laws.

Sixth. To impose fines upon those who violated the laws.

Seventh. To appoint competent pharmacists of the island to inspect the drug stores, reporting on what they had observed and thought worthy of consideration. These inspectors had the right, by special authority from the subdelegation, to enforce strict obedience to the laws, imposing just fines, which fines were doubled on second violation. In case of a second repetition of the offense the subdelegation could cause a fine as high as 250 pesos to be imposed, and could prohibit the sale of the articles involved, confiscating the stock of such on hand and placing it to the credit of the royal pharmacy. The inspectors were also authorized to report any person who practiced both medicine and pharmacy, allowing such person to retain his own professional title and seizing the other for remission to the subdelegation, to be filed accordingly. It was the duty of the inspector to oblige a father or son to relinquish practice in a town where the physician was father or son of the pharmacist of the town.

These orders, as well as the inspectors, were done away with between the years 1862 and 1865. No data exists relative to the exact date of their having ceased.

Eighth. To intervene and terminate, by recommendation, any differences which arose between pharmacists in the public administration with reference to the valuation of medicines served to the poor.

Ninth. To draw up a catalogue of medicines that a druggist must have in stock before he could be permitted to open his place of business; also the prices at which all medicines, whether simple or compound, should be sold. The inspectors were to be governed by these.

Tenth. To issue licenses to merchants, provision agents, or grocers who desired to sell simple medicines.

Twelfth. To inform the authorities of serious violations of the law, that the persons infringing might be duly punished.

Thirteenth. To name a member of their faculty who should inspect the importations into the country of medicines through the custom-houses, admittting those of good quality, and retaining those that were not.

Fourteenth. All the members of the subdelegation were subject to the same privileges, rights, and other obligations that the laws conceded to the other pharmacists on the island.

REMUNERATION.

The following were the remunerations received by the members of the subdelegation:

First. A member received 2 pesos for each matriculation of an applicant in pharmacy that he effected; 4 pesos for the two examinations held (paid by the applicant), and 150 pesos examination fee deposited by the candidate before admission to final examinations.

Second. The member appointed to inspect medicines which came through the custom-house received 4 pesos for each invoice containing eight articles he made out.

Third. The inspectors received 4 pesos for each inspection made of a drug store, warehouse, or depot of medicines.

Fourth. Each member received 1 peso for every license issued by the subdelegation for the sale of simple medicines.

The following were the requisite conditions to enable one to practice pharmacy:

First. To have four years of professional practice, during which time the minor sciences must have been studied. In the first year it was required to study elements of natural history; in the second year, elements of chemistry; in the third, the study of drugs and medicinal substances used in pharmacy; and in the fourth year, experimental pharmacy.

Second. At the commencement of every year the subdelegation must prepare for the matriculation of applicants, who were obliged to present original proof of baptism, a certificate of having taken a course (and this approved) in Latin grammar, logic, and mathematics, and another certificate from the druggist in whose pharmacy they practiced.

Third. At the end of each year the applicants received an examination in the courses they had studied during the year, and, if approved, a corresponding certificate was issued them.

Fourth. The applicant was required to present, before examination, certificates from a pharmacist to the effect that the latter had acted as his preceptor for the last two years of the course. Certificates for the first two years were unnecessary, as the applicant during this time was not required to study under a preceptor.

Fifth. After completing his course the applicant presented himself for final examination before the subdelegation, with the four certificates of having successfully passed the required preliminary examination and depositing 150 pesos with the funds of the subdelegation.

Sixth. He must then pass a theoretic and practical examination in the presence of any one of the members of the subdelegation by writing and dispensing two prescriptions.

Seventh. The examinations successfully completed, each applicant filled out a declaration in accordance with the required formula.

After all formalities had been complied with the subdelegation granted a title as "licentiate in pharmacy," which permitted practice throughout the island; and the "general direction of education" was so informed by means of a printed form in which the applicant's name in full and his residence were given. Should the candidate desire permission to practice his profession throughout the entire Spanish dominions, the said corporation had to be so petitioned. Foreigners were obliged to prove that they had practiced their profession in their own country.

GENERAL REGULATIONS.

The pharmacists who were established, and by the public recognized as such, at the time of the organization of the subdelegation were allowed to continue to practice their profession; but those who thereafter arrived in this country and were not from a Spanish university were obliged to pay 150 pesos to revalidate their titles.

Merchants, grocers, and owners of warehouses who took out a "patente" or license were allowed to sell simple medicines in their natural state without preparation, provided they were sold in quantities of not less than a quarter of a pound.

The subdelegation held meetings once every week, on a day and hour appointed by the board, for the consideration of everything which related to the literary and economical government of the profession.

The regulations provided for the necessity and propriety of appointing, when funds so permitted, a committee on botany and chemistry to prepare a general plan of studies and forward same to Her Majesty, through the governor, for approval.

RENDERING OF ACCOUNTS.

The subdelegation of pharmacy, being under the immediate supervision of the "general direction of education," in the scientific literary, as well as the economic, order, was obliged to remit a semiannual account of receipts and disbursements, with a statement of the amount of funds on hand and accompanying vouchers.

Of these accounts remitted, a great number lay for many years in the archives of the "general direction" without having ever been examined or approved.

The duties of the secretary were set down in the regulations with a confused statement of details. He received all applications from candidates, who were obliged "to send all papers," including information as to good moral character, together with the petitions made to the subdelegation. He had also to take charge of moneys deposited for any reason with the subdelegation, giving the corresponding receipt for same.

The duties of the inspectors were also conveniently established. These officials were invested with very unusual powers. They had authority to close, or cause to be

closed, any pharmacy the owner of which practiced any profession other than his own, the subdelegation being thus informed. They had the right to order the presentation of inventories of the property of the store; and if any false or suspicious statements were found, the establishment was, by their own authority, ordered to be closed and the subdelegation informed thereof. The fines inposed were placed with the funds of the subdelegation.

The inspectors were obliged to make a searching examination of the prescriptions; and if some were found to be written by an incompetent practitioner, for internal use, the druggist was warned and a report made to the subdelegation. In towns without physicians the inspectors "permitted internal medicines prescribed by 'curiosos' or quacks to be dispensed." Comment is unnecessary.

Fortunately this condition of affairs with respect to supervision, which was greatly abused, lasted but a short time, and the druggist thereafter was free from the scandalous guardianship of his professional brother.

Notwithstanding the excessive and arbitrary authority of the inspectors, the subdelegation of pharmacy may be considered as having been the best organized board the country possessed, for it carried out its many indispensable duties with the proper zeal.

It should be understood that previous to the definite establishment of the subdelegation there existed a subdelegate pro tempore, appointed by the superior board of pharmacy, who was authorized to examine and issue diplomas. The last person fulfilling so delicate a charge was Don Urbano Blasquez Pardo, licentiate, who resigned on the 1st of July, 1839.

The subdelegation made numerous reports, of which many copies were filed in its archives, and the Government put in force many measures which said center advised.

In 1862 it was recommended that in towns where there were more than one drug store the prescriptions for medicines for the poor be equally divided among them.

In 1864, upon the suggestion of the subdelegation, the governor ordered that prescriptions written for the poor sick be numbered and submitted as vouchers to the accounts for reimbursement, with a detailed memorandum of the character of each, so that errors or overcharges in accounts of druggists could be corrected.

In the same year protest was made against the introduction into the country of the homeopathic system of practice, adding that "the importation of medicines for practice, under said system, was against the interests of humanity." Dr. D. N. Bascome was the first homeopathist to practice in this country.

The subdelegation rendered a yearly report for each town of the value of medicines distributed to the poor sick, upon which estimates of such expenditures were based and approved.

The record books of the subdelegation show numerous communications from the inspectors and also from the inspectors of medicine, the latter respecting their proceedings in the custom-house, and also communications which lead up to very extensive reports of but little importance.

Many of the requirements of the regulations were modified, and others fell into disuse, but the subdelegation always remained the authority on questions concerning the practice of pharmacy, interposing in matters of difference as to payment for medicines between pharmacists and municipal councils, preparing studies in pharmacy, and examining and issuing diplomas to applicants. This latter function was later transferred to the Institute of La Ensenanza, which conducted the examinations which took place in the academic year 1898 to 1899. This order required that to obtain a title of pharmacist by examination after February proximo the candidate must possess a title as bachelor. This judicious requisite was not complied with, because those applicants who desired examination in the said academic year were unable to do so, nor should this have been required, since they matriculated previous to the promulgation of said order by the military governor. The institute was closed on June 30, 1899, and the superior board of health of Porto Rico was established, which center was authorized to examine and grant diplomas to pharmacists, physicians, dentists, practicantes, etc., as it has been doing up to the present date, with strict enforcement of the laws on the matter.

The general order abolishing the subdelegation of pharmacy was issued on December 1, 1898, which reads as follows:

I. The royal subdelegation of pharmacy is hereby abolished.

II. Until a university is established in Porto Rico, the courses and examinations necessary for a diploma in pharmacy will be in charge of the institute of higher education.

III. The fees for examination and diplomas will be the same as were charged by the subdelegation of pharmacy.

IV. From February next the degree of bachelor will be required for matriculations in pharmacy.

V. As in case of the degree of bachelor, that of pharmacist may be obtained by private tuition, provided it be shown by yearly certificates that the candidate has during three years gone through a practical course of studies in a registered pharmacy.

VI. The institute of higher education will take charge of the archives of the subdelegation of pharmacy.

By command of Major-General Brooke:

M. V. SHERIDAN,
Brigadier-General, U. S. V., Chief of Staff.

The following was the method of procedure of the subdelegation: The petition of the applicant was filed. This document had to be accompanied by a communication to the president, an original baptismal certificate, a certificate as to good conduct, and also one as to his having taken a course in Latin, Castilian, logic, and mathematics, to which was added the annual approval of the course taken by the applicant during the year preceding. The course being completed and the examinations all approved, a certificate to this effect was filed with the petition and a title granted. In the registry book a literal copy was made of the title, which served as a registration of the same. This requirement was not always duly complied with, because there appear many entries that are not complete, some minus the signatures of the examiners, some without date, and many with but a single heading.

It was a very common thing to make exceptions in favor of applicants who were not of proper age, for these would often employ a frequently successful way of obtaining these exceptions, that is, by appealing to the governor, who usually received letters of recommendation from persons of influence, and he would then disregard the law. He would request information regarding the matter from the subdelegation and would always receive a favorable recommendation on the applicant's petition.

The manner in which foreign titles were registered was to literally copy the title presented by the applicant.

Pharmacists, not graduates of Spanish universities, were obliged to obtain a license by examination, which fact was later noted in the registry, the same as done to students who took courses in the subdelegation.

The power of reviewing foreign titles was vested with the subdelegation in 1846 and ratified in 1848; the payment of 750 "escudos," equivalent to 375 pesos, being an indispensable condition; but later, taking as a basis the expenses which this institute had, the applicant was obliged to pay 8 pesos for examination and 150 pesos for the title, besides other expenses.

From the 5th day of March, 1842, date on which the first entry was made in the registry book, until the last, the date of which is not given, though quite certainly some time in the year 1898, the subdelegation of pharmacy registered 331 pharmacists, from the following places:

Subdelegation of pharmacy of Porto Rico	297
Porto-medicate of Cadiz	1
Superior board of pharmacy of Cuba	5
Given by the general direction of education of Spain (college not given)	2
Subdelegation of pharmacy of Mallorca	1
University of Naples, Italy	1
University of Santiago	3
University of Madrid	5
University of Barcelona	7
University of Habana	5
New York College	1
University of Caracas	1
University of Canada	1
University of Sevilla	1

With respect to nationality they may be classified as follows:

Porto Ricans	260	Dominicans	3
Spaniards	32	Danes	3
Cubans	5	Swedes	2
Venezuelans	5	Italian	1
Frenchmen	12	Mexican	1
Englishmen	1	Of unknown nationality	6

The institute granted 34 titles to persons who because of these were licensed by the superior board of health, of which number but 20 appear to be entered in the old registry book of the institute. They are as follows:

Porto Ricans	32
Cuban	1
Dominican	1

TREES UPROOTED IN SAN JUAN.

Since the superior board of health was established, to date 205 licenses were issued to different pharmacists, as follows:

To those granted licenses by the royal subdelegation of pharmacy of Porto Rico	162
To those granted licenses by the board of higher education	34
By examination	5
To those with titles from the University of Barcelona, and who had practiced previous to the advent of the Americans	2
To those who possessed titles from German universities	1
By toleration—license granted in virtue of large practice during Spanish occupation and proven aptitude in pharmacy	1

There are of these:

Porto Ricans	191
American	1
Cubans	3
Frenchman	1
Dominican	1
Spaniards	8

The fact that the subdelegation of pharmacy most notably seconded the steps taken by the Conde de Mirasol, governor-general of Porto Rico, deserves special attention. The said general suggested that 2 Porto Rican youths, whose character and intelligence were unquestioned, be sent to Europe to receive a scientific education, so that upon their return they could enlighten the culture of their native land with what they had acquired. This recommendation received a hearty echo from all the members of the subdelegation, and in April, 1848, it was authorized to invest in said project $1,000 annually for the maintenance of said youths.

One of the two students elected was Dn. Ramon Baldoriothy de Castro, who, by his wisdom and virtue, reach the highest possible position among his fellow-countrymen, his name being well known in other countries.

The other student was Dn. Jose J. de Acosta, who, together with Dn. Ramon Castro, opened the way for the free entrance of civilization into the country. They represented their country in her demands for justice from the Spanish courts, though, unfortunately, in spite of their earnest efforts, this was never obtained.

In 1885 pharmacists were declared exempt from the payment of subsidiary taxes for the substances they employed in the composition of medicines, but they were obliged to fill gratis all prescriptions written by physicians under the pro amore dei clause.

The widows of pharmacists were authorized to keep open, under their name, the establishment of their husband, but a licentiate in pharmacy had always to be present.

Shortly after the foundation of the subdelegation moneys were collected from students in pharmacy in payment for examinations and title. With these funds the board met its many expenses, but later the state laid hold of these as a means of covering the expenses of its budget.

APPENDIX J.—*Report of board of health of San Juan.*

SAN JUAN, P. R., *May 16, 1900.*

SIR: I have the honor to submit the following report of the board of health of this city for the period from July 1, 1899, to April 30, 1900.

A few remarks in reference to this city and its people may aid in fully appreciating the difficulties experienced by the city board of health in its work.

San Juan, except that portion known as Santurce, is situated on the island of San Juan. It is located on a hillside which slopes from north to south, and its natural drainage is excellent, the only disadvantage being that the drainage flows into the bay, which is on the south of the island, and which constitutes the harbor of San Juan.

It is said that originally the Spanish Government retained for military purposes all the island of San Juan except a small strip adjacent to the harbor, which was turned over to the natives for building purposes.

As the population increased another allowance of land was made them, and the process was repeated, so that at present we have a city in which the lower and less desirable portions are occupied by the wealthier class and the higher and more desirable portions by the poorer class.

San Juan proper is a walled city and it was evidently the desire and intention of its people to live within its walls, as of a total population of 32,000 in the entire municipality, about 18,000 are packed within a space of about 140 acres; i. e., they occupy so much of the land within the walls as was given up to them for building purposes. The remaining 14,000 are scattered about in the suburbs of Puerta de Terra and Santurce.

Its inhabitants are about equally divided between the colored—negro and mulatto—and the white—Spanish and Porto Rican.

In all matters of sanitation and hygiene the Spaniards appear to be about a century behind the times, and it is, therefore, not surprising that the majority of the inhabitants of this city are uncleanly, both in their domestic surroundings and in their personal habits.

Owing to the lack of proper facilities for the disposal of sewage, it was customary to throw almost all waste matter either into the cesspool or the street, a small proportion of garbage being taken away by bull carts. With the owner of the house threatening a rise in rent in case he was required to clean the cesspool too frequently to suit him, with the police threatening arrest in case slops were thrown into the street before 10.30 p. m., and with either no sewers or no proper sewers, it can not be wondered at that these people had learned to live with the use of the smallest possible quantity of water for cleaning purposes. But that the lack of facilities for the disposal of waste water is not the sole cause of their uncleanliness is shown by the fact that in country districts, where there is plenty of room for the disposal of sewage, the same uncleanly habits are observed as in the city.

The fact that until recently they depended entirely upon cistern water (rain water) for all purposes may also have had something to do with their scanty use of it. Whatever the cause or causes, it is quite true that the natives of this city appear to possess a decided antipathy to water.

The buildings are, as a rule, two stories in height. They abut directly on the street, and in compliance with a municipal ordinance about one-third to one-fourth of the ground upon which they are erected is left uncovered and is used as a courtyard. The houses are invariably of brick and cement mortar, a compulsory measure also. About four-fifths of the houses in San Juan proper are tenement houses, according to the American idea of a tenement house, i. e., roughly speaking, a house in which three or more families dwell. The ground floor consists of a hallway leading to the courtyard, on each side of which, and on all sides of the courtyard, are small rooms, each occupied by one entire family of the poorer class. The wealthier people live on the upper floor or floors.

In the center of the courtyard is the cistern from which water for all purposes is obtained. Within the last year aqueduct water has been installed in probably two-fifths of the houses. On the ground floor, in rear, is the latrina or cesspool, an enormous hole with brick and cement sides and a floor of earth to permit the liquid contents to pass into the ground below. It can, therefore, be readily understood that this city is undermined with cesspool matter. The latrina is neither lighted nor ventilated except by the door through which one enters.

Two of the great needs of the city at present are more available land for building purposes and more houses.

If the regulations of the superior board of health in regard to air space in dwelling houses were strictly enforced, hundreds of families would be rendered homeless.

As for house plumbing, there was none. About two years ago a municipal ordinance was passed which stated that in all streets where there was a sewer the large cesspool should be replaced by a small one, called a "poso-muro," which should be connected with the sewer. A large number of the property owners simply made an opening in the top of the original cesspool and connected with the sewer by a brick drain; and this method of house plumbing, namely, the connection of the cesspool with the sewer by a brick overflow, is in vogue to-day.

In some of the large tenement houses there is a person whose business it is to see that no one sleeps therein without paying rent, but there is no one to look after the cleanliness of the place in general. One of the first acts of the city board of health was to endeavor to obtain an approval of the city council to an ordinance compelling owners of tenement houses to appoint a janitor, whose business it would be to clean those parts of the premises used in common; but the council refused to approve.

The city government has not been progressive in sanitary matters, and whatever advancement has been made was on the recommendation of the superior board of health and by order of the military governor.

Another great fault in house sanitation is the manner in which cisterns are cared for. Their walls and floors are of brick and cement, and as a rule they are without covers. Very often the walls are cracked or broken, and, as they are never far from the cesspool, in such cases there is undoubtedly infiltration of cesspool matter into the cistern. Often, too, are found in cisterns old cans, shoes, rags, etc., evidently

thrown there by the people who drink water therefrom. Very often the usual place for the bucket, which is used for hauling up water from the cistern, is on the floor of the courtyard, which is apt to be very dirty. Rain water is conducted to the cistern from the roof of the house, and there is not sufficient care observed to maintain this in a cleanly condition.

The poor women living in the small rooms on the ground floor earn their living largely by washing, and the fact that the courtyard is used for this purpose adds another objectionable feature to life in a tenement house in this city.

The "plumbing" in municipal public buildings, including schoolhouses, is of the same character as in tenement houses.

A considerable portion of the work of the board has consisted in house cleaning, or, rather, cistern and cesspool cleaning.

One inspector was constantly employed in visiting the buildings of the city, particularly public buildings and tenement houses.

The number of cesspools cleaned by the excavating apparatus of the board averaged about 25 per month; the number cleaned by the owner by order of the board about 20.

The number of cisterns cleaned by the board averaged about 10 per month; the number cleaned by the owner by order of the board about 15.

The charge made for cleaning cesspools is about $2.50 per cubic meter; that for cleaning cisterns $2 per hour.

An idea of the size of some of these cesspools may be gained from the cost of cleaning the four at the San Juan jail, which at the above rate, was about $439. Although each year an allowance was made in the municipal budget for this work, it is probable that they had never been thoroughly cleaned previously.

The employees engaged in this work consist of 1 excavator expert, 8 prisoners, with 2 guards for same, and 3 teamsters.

San Juan proper has about 9 miles of streets, about 4 of which are paved with vitrified brick, and the remainder with rounded cobble stones.

With the assistance of the military government, which furnished mules, wagons, and teamsters, it has been possible to keep the streets of San Juan in a very cleanly condition; but owing to the absolute worthlessness of the municipal police as an aid in preventing the throwing of garbage and other refuse into the streets, the best results have not been obtained.

All house garbage is removed from the main streets by 8.45 a. m. The main streets are swept twice during the morning and twice during the afternoon; the other streets twice daily. The force engaged in street cleaning and the unloading of wagons at the "dump" consists of 60 prisoners, with 9 guards, and 1 superintendent, and 10 teamsters.

With the assistance of the military government again, the main streets are sprinkled twice daily, and two men, a driver and assistant, are employed at this work. Owing to the great size and weight of the street sprinkler several of the streets can not be sprinkled, and it is very necessary that arrangements be made by which all the streets may be sprinkled before sweeping.

San Juan proper has about 4 miles of sewers, whose defects are innumerable. That portion of the sewer system between the "poso-muro" in the house and the street sewer is simply a long cesspool, and unless it rains frequently the street sewer is apt to become the same. The house plumbing being that mentioned above it can be readily understood that all houses connected with the sewer are filled with sewer gas, and to lessen this evil the city engineer conceived the idea of ventilating the sewers in the middle of the street, which was done, thereby relieving the houses to a certain extent, but fouling the air in the streets. Unless all parts of a sewer system can be properly flushed it becomes a nuisance, and the sewer system of this city is a nuisance. All waste not carried off by the sewer, such as street sweepings, garbage, cesspool matter, and condemned foods of all kinds, is dumped into the sea from a platform erected on the ruins of an old fort at Puerta de Tierra, about three-fourths of a mile from the city proper. Considerable complaint has been made by the people of the city of the location of this dump, principally because this place was formerly their favorite bathing place. The efforts of the superior board of health to induce the city government to establish a crematory met with no success and probably will not for years to come.

Recently the city board of health considered a plan for the disposal of garbage, street sweepings, etc., which consists of the removal of this waste by boat from the city to Martin Peña, where it is proposed to use it for filling in swamp land. It seems probable that this plan will be adopted, but as cesspool matter will not be disposed of in this way it seems also likely that the present dump must be maintained.

The number of loads of house garbage and other refuse, street sweepings, etc., removed by the board has averaged 660 per month. The number of cubic meters of cesspool matter removed averaged about 176.9 per month.

Our inspector has devoted his time to the inspection of goods of all kinds, milk, alcoholic beverages, and the establishments in which these articles are sold. Milk, when adulterated with water only, is usually sent to the patients at Santa Rosa hospital. All else that is condemned is carted to the dumping station at Puerta de Tierra and there disposed of.

The general order on "inspection of cattle and meat," dated April 10, 1900, was much needed, and forms a good working basis for the future.

The receipts and expenditures of the board from July 1, 1899, to March 31, 1900, are as follows:

Balance on hand July 1, 1899	$938.50
Received from alcalde	3,000.00
Excavator earnings	3,981.23
Total	7,919.73
Expenditures	7,379.75
Balance on hand March 31	539.98

The organization of the board was based on the belief that the city would place at its disposal $500 per month, and that about $300 would be earned per month by the excavator. The averaged monthly earnings of the excavator have been $442.35; but the city appropriation has been turned over at very irregular intervals, and no money was received from that source during the months of January, February, and March.

The uncertainty as to money resources interfered greatly with the work of the board.

The vaccination of the people of this municipality was very thoroughly done before July 1, 1899, by the medical department of the army.

At the present time all children must be vaccinated before attaining the age of 6 months, and twice each year, in May and December, free vaccination is offered to all who apply.

There has been no case of smallpox in this municipality during the period covered by this report.

Owing to the crowded condition of the houses, it is very necessary that the city should have a permanent contagious-disease hospital.

The infectious diseases with which the board was chiefly occupied were measles, varicella, diphtheria, and tuberculosis. In the case of the two former the plan followed was, as a rule, the removal of the person infected, together with all exposed, to tents located on the military zone near Fort El Morro. No child exposed to a contagious disease is permitted to attend school until such time as the health officer grants a permit for so doing.

House disinfection was under the supervision of the health officer, and the disinfectants used were mercuric bichloride and sulphur.

Owing to the uncertainty as to funds, no formaldehyde generator could be purchased, and this is one of the needs of the board at the present time.

During the months of February and March influenza and varicella appeared in epidemic form, and during April, measles. In February there were nine deaths from influenza and its complications, and during March there were sixteen.

The hospital for venereal diseases in women was opened about one year ago. It has a capacity of about 60 beds and is pretty well filled at all times.

Tuberculosis was placed under the supervision of the board of health, and great difficulty has been met with in impressing upon physicians the fact that this is a preventable disease and can be largely controlled if proper precautions are taken.

Next to diarrheal diseases, tuberculosis is the most important factor in the high death rate in this city.

The following table shows the number of deaths from diarrheal diseases and tuberculosis, compared with the number of deaths from all causes, from July 1, 1899, to April 30, 1900:

	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Diarrheal disease	7	8	13	17	18	10	25	16	26	26
Tuberculosis	6	5	11	13	11	14	10	15	14	10
Total	13	13	24	30	29	24	35	31	40	36
Total deaths from all causes	60	63	61	65	90	79	95	89	123	97

Diarrheal diseases are undoubtedly largely due to the drinking of contaminated water from the cisterns. The disfiguring forms of filariasis, as elephantiasis and lymph scrotum, are also probably contracted in that way.

Persistent anæmia, or ankylostomiasis, while very common here, has not influenced the death rate to any great extent.

The population of the city being 32,555, the death rate for the above ten months was 30.2 per thousand per annum.

Among the most important of the general orders issued by the military governor, on the recommendation of the superior board of health, as they effect health matters in this city, are the following:

1. On contagious and infectious diseases.
2. On the purity and wholesomeness of foods, drinks, drugs, and medicines.
3. On burials, disinterments, and transportation of human bodies.
4. On nuisances.

Among the most urgent needs of the city at present, from the view point of the board of health, are the following:

1. More available land for building purposes, and more houses.
2. The completion of the filtering beds at the city waterworks, and the installation of aqueduct water into every house in the city.
3. The completion of the sewer system, with the improvement of that already existing, and the installation of modern plumbing into every house in San Juan proper.
4. A crematory or incinerator.
5. A contagious and infectious disease hospital.
6. A hospital for the treatment of acute diseases and surgical cases, with which there should be an outdoor department.

Very respectfully,

M. E. HUGHES,
Acting Assistant Surgeon, U. S. A., President.

To the PRESIDENT SUPERIOR BOARD OF HEALTH,
San Juan, P. R.

APPENDIX K.—*Report of Board of Health of Ponce from March, 1899, to May, 1900.*

This board of health was organized immediately after the arrival of the American troops in Ponce, and an officer was placed on duty with it, but as this officer was frequently changed, and had many other civil as well as military duties at the same time, very little was accomplished in the way of organization until the spring of 1899, when, on March 25, I was detailed as president of the board with no other duties.

At this time the city was very dirty, and no attempt was being made at the systematic inspection of houses or food stuffs, or to control disinfection and cleanliness.

The board consisted of myself, as president, Dr. Ferran, as medical officer, Dr. Lavinder, United States Marine-Hospital Service, as member, together with two of the city councilmen, Dr. Vidal and Mr. Bernard. Rafael Dapena, the secretary, was the only paid member, and he received $15 monthly, and had the assistance of another clerk. There were no inspectors and practically no records.

In estimating the work done it must be borne in mind that the board was beset with difficulties that probably would not be encountered anywhere else in the world. The people, by nature and long training dirty, are wholly ignorant of the simplest rules of sanitation or even of cleanliness.

The houses are for the most part but huts built of old boards, tin cans, or bark, and roofed with palm leaves. They are set close to the ground, and often unprovided with any privy or cesspool, so that the inhabitants have to use the rank vegetation on the patio in lieu of a regular privy.

The houses of the better class are built of wood, which rots quickly, and are but little better from a sanitarian's point of view; while the houses of the rich are built of brick, with unfurred walls and without a damp course. These houses are about the only ones that contain any plumbing fixtures, and these are usually, if not always, placed either in the kitchen or an adjoining room, while not a single fixture in Ponce, nor even a system, is trapped, the waste running straight from the fixture to the cesspool, which is usually placed directly under the house. The only good feature about these houses is the facility with which they can be disinfected.

Probably the greatest difficulties that the board encountered were the lack of money with which to do its work and the apathy or open hostility of the people,

although towards the last the city authorities did give to the board all of the money that could reasonably have been asked, in view of the city's poor financial condition.

Without a sewer system, very little could be accomplished with the plumbing problem, and, owing to the peculiar legal status of the city, a loan for this purpose could not have been negotiated. The majority of house owners are far too poor to build proper privies or cesspools, or in fact to do any sanitary work that necessitates any considerable outlay of money.

There were two systems of cleaning privies in vogue at this time; one, the removal of the excrement to a hole prepared for it in the patio and near the privy, thus in time converting the entire patio into a covered mass of excrement and germs, and the other, removing the excrement to the Portuguez River, which flows on one side of the city and serves as a public laundry and bath. Here, also, most of the garbage of the city was dumped, together with manure, rubbish, and human excrement. Here the clothing of 40 per cent of the city was washed, the clothing of smallpox patients often being washed in the same heap or alongside that of healthy persons, for at this time, it must be remembered, an epidemic of smallpox was filling the three pesthouses to overflowing.

Almost the first work of the board was the making of a careful inspection of the city, the record being made on appropriate blanks, one blank for each house and showing, besides the names of the owners and occupant, full information as to the cleanliness of the patio, privy house, stable, etc., the source of water supply for the house, the disposition of dirty water, garbage, and in fact all data that might be of value in the titanic work that lay before the board.

A large map of the city was then prepared, showing the location of every house in the city, and the sanitary condition of each house. This was done by means of colored papers, a red paper pinned over a house indicating a dirty privy, a blue paper a dirty yard, a yellow paper a quarantined house, etc., so that upon the completion of this map the condition of the entire city could be seen at a glance, and the work of the inspectors be seen from day to day.

The result of this inspection showed about 3,000 privies existing in the city and about 4,000 houses, and that about 1,000 privies needed immediate attention, besides the cesspools and dirty yards to be cleaned and a number of infected wells to be closed up.

The work of cleaning up the premises occupied about four months and was well in hand when the cyclone of August 8 destroyed all the records of the board as well as all the work of the inspectors, and left the city covered with from 2 inches to 5 feet of mud and refuse, dead animals, and corpses.

The work of cleaning up the city was divided between the city architect and the board of health, and was practically completed within a month.

Immediately after the cyclone each ward of the city was subdivided and the force of inspectors augmented to about twenty. Some of these made house-to-house inspections; others were in charge of working parties removing mud and débris from under and around the houses of the poor and disinfecting same. Some were scouring the country looking for bodies of the dead and burning or burying them, supervising the distribution of food to the starving, preparing lists of missing, etc. One was in charge of the cemetery with its work of disinfection and burial and yet others had clerical work in the office to do or food to distribute.

Without going into the details of the gradual crystallization of the present methods of the board, it will perhaps be sufficient to say that these methods were not all put into operation at any one time, but that each new thing was introduced as soon as the last had been thoroughly understood.

The board as it is now composed consists of Mr. Jose Guzman Benitez, the alcalde, as president; Dr. Luis Agrerevere as medical officer and secretary, and the chief of instruction and the chief of charities as members.

It employs 1 chief of inspectors, 7 inspectors, 1 meat inspector, and in the collection and disposition of garbage, 1 foreman and 4 laborers (burning garbage), 8 wagons and 16 laborers with same (collecting garbage).

It is in charge of a quarantine hospital, and exercises supervision over the slaughter-house, two cemeteries, the schools, both public and private, and all city institutions generally.

The city is divided into seven wards, or as they are called, "sanitary barrios," and to each barrio an inspector is assigned and held accountable for the condition of that barrio.

He visits every house in his district once in each fortnight, and reports its condition on a form provided for that purpose. Besides this, he makes a daily inspection of all milk deposits in his barrio and all stores where food is exposed for sale. Milk or other articles which might be adulterated and which he regards as suspicious are submitted to chemical analysis by the city chemist, and decayed or unwholesome

A BARRIO, PONCE.

foodstuffs to the medical officer of the board. When, in his inspection, an inspector finds a person sick and without medical attendance, a city physician is sent immediately to report the nature of the illness and to attend to the sick.

In this way the board has often located smallpox and other contagious diseases, and has prevented their spread.

All licensed physicians are provided by the board with blank forms for a weekly report of their cases, and these are combined into the weekly report to the superior board of health.

Besides these weekly reports, all physicians are provided with a stub book for the immediate report of contagious diseases. This book has two blank reports for each case reported. One of these is sent in within twenty-four hours of the first attendance, and the other when the patient dies, is cured and past the danger point, or when the patient passes into other hands, such as when he is sent to a hospital or out of the city. A stub is kept which shows all of the same information.

When these reports are received in the office, they are entered in a book, each class of illness being kept separate, so that the entire number of such cases existing in the city on any given day can be ascertained with great facility, and the date and manner of disinfection upon the recovery or death of the patient. This disinfection is done by the inspectors themselves, under the direction of the medical officer of the board, and is always thoroughly performed

The usual method of disinfection is to thoroughly scrape floors and walls and then sprinkle them with a 1 to 1,000 solution of bichloride of mercury, fumigate with sulphur, and then rewhitewash the walls. The clothing and bedding are burned, together with bandages and other infected clothing and cloths, and the bed washed with a bichloride solution.

The privy is then cleaned, disinfected with quicklime, and the privy house whitewashed, and a general cleaning is given the premises.

In cases of smallpox or chicken pox the neighbors for a distance of two blocks are all vaccinated and closely watched.

The prevalence of so-called chicken pox in adults warrants the same precaution in such cases as in smallpox, as the native physician is not always a reliable diagnostician.

The garbage of the city of Ponce is very badly mixed, running from kitchen refuse to bottles, tin cans, and manure, and it would be difficult to handle in a furnace or crematory, and would produce no salable refuse, because of the almost complete absence of meat or other greasy component.

The garbage is collected in eight wagons, each wagon having a route from 1 mile to 1½ miles in length.

Besides the driver, each wagon carries a helper, who is provided with a street broom, a shovel, and a hoe.

In order to expedite the work of collection among the smaller houses, where the daily refuse is very inconsiderable, large galvanized iron cans are placed along the streets at intervals of about 50 yards, and the occupants of the neighboring houses are required to bring their refuse to these cans; nor is the driver allowed, in the parts of the city so provided, to stop at the individual houses or to receive garbage therefrom.

Similar cans, with appropriate signs painted on their sides, are placed in the plazas and market to receive fruit peelings, cocoanuts, and similar refuse.

In the residence portion of the city the people are required to provide themselves with suitable receptacles for their garbage, which the cart receives directly from the houses, provided that the can is clean; otherwise the driver refuses to accept the garbage until the can has been cleaned.

Usually all houses in the city are visited daily by the wagon, but in some parts of the city, owing to the length of the route, the collection is made on alternate days.

Due to the absence of slops and grease and to the presence of dried grass, leaves, rubbish, etc., the public cans seldom require cleaning, but when a dirty can is found it is taken up and replaced by a clean one, the dirty can being afterwards cleaned and disinfected.

The broom, shovel, and hoe are used to collect any garbage that may have been spilled about the can, and also in cleaning the wagon at the end of each trip.

The sea at Ponce being too distant and too shallow to allow of disposing of refuse therein, it was determined to burn it in the open air, and in the selection of a suitable point the chief governing facts were a constant wind which blows over the city in a westerly or northwesterly direction, together with the topographical features of the river on the east, mountains on the north, and another city (Playa) on the south, while to the west lay open country, well drained and reached by an excellent macadamized road. All of these conditions lead to the selection of the present site for the final disposition plant on a piece of municipal ground about 2 kilometers west of the city hall.

This lot is the only spot near the city where dumping is allowed, and is in charge

of a foreman and four peons. It is a long, narrow lot running up the mountain side. It is sheltered from the road by a high hedge, and is used for the disposition of the refuse from cesspools as well as the garbage of the city.

A road was built alongside of this lot, and another connecting the city with it, in order to avoid using the main streets of the city.

The portion of the lot devoted to garbage was subdivided into a number of sections, one of which is devoted to the reception of garbage, another to street sweepings, and yet another to bottles, tin cans, etc., while the rest, except the part used for privy dumpings, is allowed to lie unused.

All rubbish brought to the lot, whether by city wagons or by individuals, is deposited under the direction of the foreman on the subdivision allotted to its class, and there it is spread out and turned over by the peons and allowed to dry for one day, when it is burned.

After this subdivision is covered with ashes to a uniform depth of about 5 inches it is raked over, and all tin cans, wire, bottles, etc., are removed to the portion of the lot devoted to their reception, and there buried. The garbage is then dumped in another portion and the street sweepings, which are fairly clean earth, are dumped on top of the ashes and then spread out by the peons.

The general appearance of the lot is good at all times, being neat and orderly, and it is wholly free from odors.

The smoke from the fires is blown by the wind up the mountain, which, at this point, is uninhabited.

Those cesspools whose contents are liquid enough are pumped out with an odorless excavator, and those too solid are cleaned with buckets and a patent odorless barrel with screw top.

After being cleaned the sides of the privies are dusted with quicklime, and a quantity of the same material is placed in the bottom.

The contents removed are carried to the disposition lot and deposited in trenches made of brick and lined with cement, where they are covered with about 5 inches of powdered quicklime.

The liquid which runs from the trenches is conducted to a filter, and from the filter to a small set of irrigating trenches.

The trenches in which the excrement is placed are built on the side of a hill, with a generous fall to the filter. They are in two groups of four trenches each, connected at their lower end by a transverse trench, at the lowest point of which is placed the filter.

They are about 1 foot deep, and at the top they are about 3 feet broad; at the bottom they are about 3 feet wide. They are built of brick set on edge and laid in Portland cement, and the whole top surface is grouted with one-fourth inch of the same material, hand troweled, and smoothed.

The filter is built of brick, lined inside and out with cement, and filled with a graduating filtering medium of sand, gravel, and coal. It is built in two parts, which are used alternately, each half being provided with independent inlet and outlet valves, so that in using it each half can be filled with sewage, which, in percolating downward carries with it the air necessary for the life of the microorganisms upon which it depends for its efficiency.

After having lain in the trenches for about ten days the excrement, under the combined influence of the sun and lime, is converted into a hard, dry, inoffensive cake, and is sold to planters as a fertilizer.

The whole plant is without any disagreeable odor, and is as free as possible from any disease-breeding conditions.

The work is all done by agents of the board, and a charge of $3.50 (gold) is made for every cubic meter of excrement removed.

The conditions following the cyclone of last year made the work of the board very much harder, and the vital statistics show that even as late as June 30, 1900, the deaths that may be laid at the door of that awful calamity had not all been counted.

Respectfully submitted.

H. E. EAMES,
First Lieutenant, Eleventh Infantry, ex-President Board of Health.

The following report, which was received three months after the military government ceased, but before the completion of the report of this board, is inserted by permission of the writer, and illustrates the necessity for a strong hand in the enforcement of sanitary laws.

SAN JUAN, P. R., *July 30, 1900.*

SIR: I have the honor to submit the following report on the existing conditions in Ponce:

In accordance with a request from the acting governor and a resolution of the superior board of health, I proceeded to Ponce on July 20, and for six days was busy in

making a very thorough investigation of all facts that seemed to bear on the causes of the enormous mortality that has been the rule for many weeks, and in this connection took the opportunity to make a minute examination of the sanitary condition in general. In this inquiry I have received every possible assistance from the officials of the town and from prominent citizens, native and American, who have the interests of the people at heart, and no source of information has been withheld from me.

I believe that it is safe to assert that there are now in Ponce 3,000 persons who are either willfully or unavoidably destitute, and it is a painful truth that the number of the first class is a large one. Innumerable instances could be given where the offer of a full day's food for self and family in exchange for a trifling amount of labor has been refused by persons well able to do what was demanded, and it is folly to allow our sentimental emotion to blind us to this very important feature of the case. Of this crowd of destitute people a very large proportion is composed of waifs and strays from every district of the island, but I found it impossible to obtain an accurate ratio of Ponceños proper to outsiders. Many of these waifs have been in Ponce more than the six months requisite for municipal naturalization, and can now claim a certain right to be supported by Ponce, and this is a serious factor in the situation. A steady stream flows into Ponce from every point, and it is practically impossible to close all roads against the unwelcome visitors. Arrived in the city, these vagrants find themselves homeless, friendless, hungry, and often sick; but, having a vague idea that they have only to ask and then receive, they wander about the streets begging and have no hesitation in taking possession of hallways and other accessible places as sleeping rooms or closets as the case may be.

As in all Spanish-American towns the trade of begging has always been recognized here as legitimate, and it is easy to imagine what a frightful nuisance is caused by the addition of these outside hordes to the normal population of beggars. Personal decency being practically unknown in this class, and bowel complaint being the principal sickness, the imagination may be left to picture the state of affairs in a city devoid of all public conveniences.

Now to meet the needs of this huge mass of sick and destitute, we find a chronic state of municipal poverty, and at the time of my visit there was less than $100 in the city treasury. The cash in hand has fallen as low as 75 cents, and the alcalde told me that he could see no near prospect of refilling the empty coffers. This being the case, private charity has been the only resource, and very nobly has the appeal been answered. But this stream of charity is necessarily a limited one, and as the field to be enriched by it was a constantly enlarging one, it was felt that some plan must be devised to bring the supply and demand into a correct relation. To such an extent had the mortality increased that the deaths for the week ending July 1, 1900, were 134, the death rate being the phenomenal one of 123 per thousand per annum. By far the greater part of this awful death rate was due to anæmia or to various gastro-intestinal troubles, and a singularly large proportion of deaths occurred among those from 30 to 45 years of age.

It is evident that by allowing matters to take their course the whole question as to the destitute would be speedily settled by extinction of the species, but as this could not be thought of, a special effort has recently been made, and a committee of twenty-five leading citizens has been organized to take hold of the problem, and has succeeded in obtaining a considerable sum of money for a relief fund. No decision has yet been reached as to the best means of distribution of this fund, but I have some reason to hope that a definite plan will be adopted within the next few days which will go far toward a permanent and equitable settlement of the problem.

In the course of my investigations I found that the quality of much of the food sold in small stores to the poor was very inferior, and in the depot of the local board of charity, in the alcaldía, there was a large amount of codfish on hand which was absolutely putrid. I directed its immediate destruction, and the nonissue of all tainted food in future. Much of this stuff has been devoured in a raw state, and it is, I think, true that the practice has been the cause of much of the intestinal diseases lately prevalent.

The means at the disposal of the authorities are ridiculously inadequate to deal with the question properly, and the hospital accommodation can not be increased beyond its present limits. More than 200 beds are now in constant use in the hospital, which is intended for only 150, and any temporary arrangements, such as now prevail, are only hospitals in name and afford nothing beyond a dirty shelter from the weather.

The old smallpox hospital, which is now utilized as a refuge for the poor, is a miserable wooden shanty, divided in the middle by a partition supposed to separate the sexes, and inhabited, in addition to the patients, by flocks of pigeons, numerous dogs and poultry, and a few stray pigs. On the day of my visit there was no water supply, and the reason was said to be that the pipe was blocked up with sediment, a

frequent occurrence in the town, but especially here where the pipe from which the kitchen was supplied is only one-fourth inch in diameter. As a matter of course the privy was in close relation to the kitchen, but of its exact state I can not speak, the door being thickly covered with excrement and the floor so befouled that it was impossible to approach with safety. The kitchen was disgustingly filthy, and only urgent hunger would justify the eating of any food issuing from it. This loathsome place is supposed to be visited daily by a physician, and it is melancholy to think that such barbarous conditions should exist without any attempt at improvement.

Now, as to the practical remedy for this distressing situation. First, there should be an equitable enforcement of the tax collection. The amount of taxes paid by men in Ponce is largely dependent upon their particular brand of politics, and the carrying out of any sanitary measures is likewise hedged about with political difficulties. This sounds preposterous, but it is strictly true, and even in the matter of charity the attempt has been made to introduce a flavor of politics, happily without success. Next, the health officer of a community of such a size as Ponce ought not to hold the appointment as a mere side issue, to be attended to at his convenience, but he ought to be a man receiving a decent salary, and who has sufficient backbone to act irrespective of personal and political leanings. Next, vagrancy and street begging should be put down with a stern hand, thus leaving the road more open to give assistance to the really deserving. Finally, let a "poor farm" be established in the vicinity of the city, and confine relief absolutely to those on the farm, where a suitable amount of work should be exacted from every capable inmate. Let the system of giving something for nothing be at once abolished in all cases but those really sick, and let it be clearly understood that those who refused offered work shall not be considered as having rights that the community is bound to respect.

The expense of starting a farm and of furnishing seeds would be very small, and as the work test would eliminate a large portion of the applicants for relief I am confident that the public and private charitable funds will be sufficient to meet the cost until the place is self-supporting or even productive of a surplus. The news of the new style of things would be carried over the island in a few days, and the streams of immigration would be checked at their sources. Meantime the mortality would still be great, and the death of the hopelessly incurables would greatly relieve the situation. I had thought that a system of deportation to their homes of these pauper immigrants might be carried out, but I soon found that it was quite impossible on many grounds, and that the only available course is to meet those immigrants outside the city and turn back all who object to go to the farm and work. This can easily be done by the present force of police of the town, and the insular police would doubtlessly agree to assist their city brethren by dealing with those outside. Unless some plan of this kind is adopted I see no prospect of any permanent good being done. The country is already pauperized to an alarming extent, and the time has arrived for the laying aside of sentiment and a perfervid humanitarianism, and the adoption of the practical rule "The greatest good to the greatest number."

Not only must the present miserable conditions be faced and met, but the grave menace to the community that is caused by the presence of this huge mass of paupers is a matter of the most earnest consideration. Ponce is ripe for an outbreak of epidemic disease; all the conditions for this are favorable, and only a spark is needed to start a conflagration of death whose limits can not be foretold. Let an epidemic once break out and the removal of the sick would be impossible, and the citizens of Ponce would be in a position of great danger.

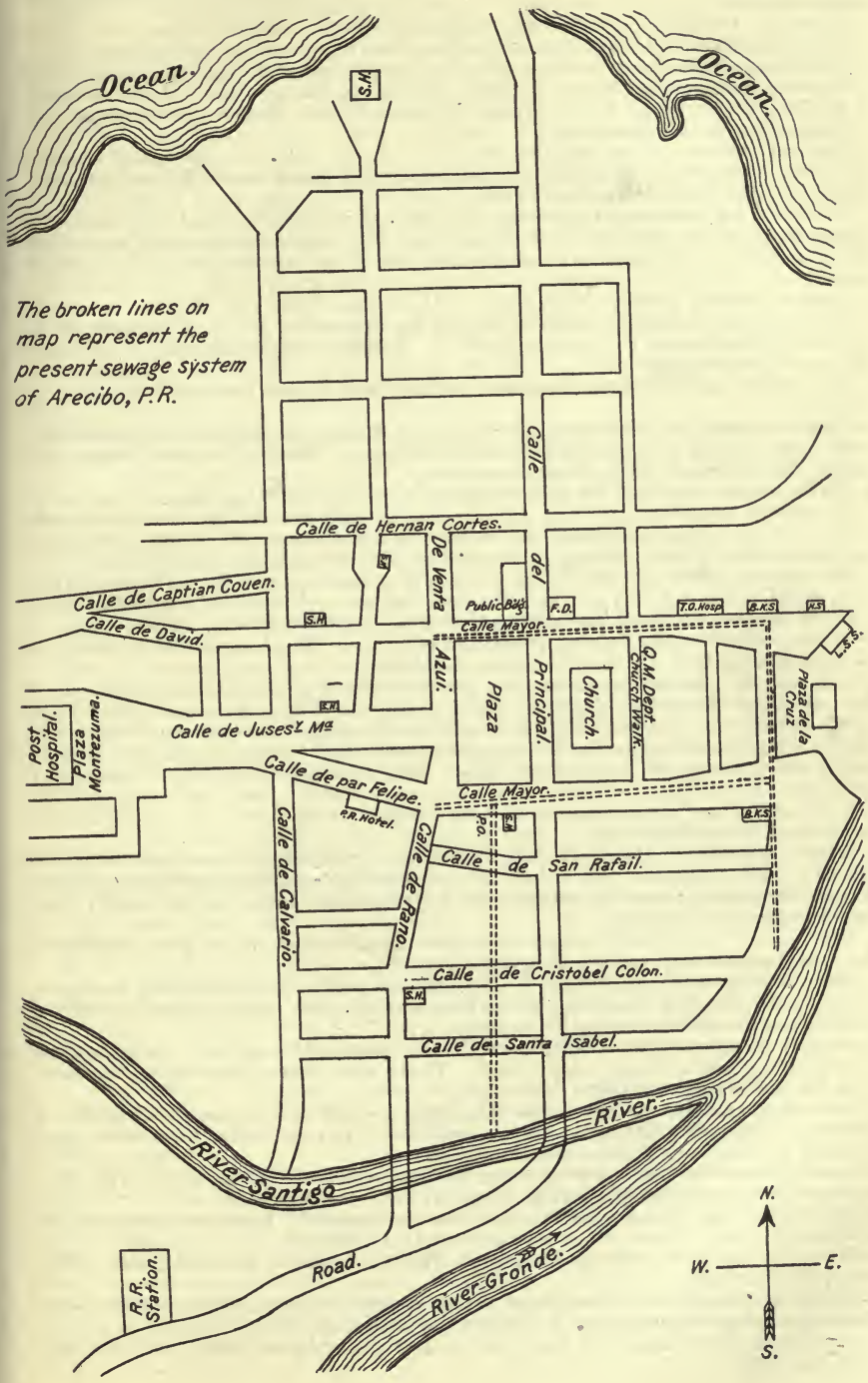
By the removal of the dangerous material to a suitable location, the city would be rendered comparatively safe, and in the case of an epidemic among the inmates of the poorhouse, medical assistance could be rendered with some prospects of good results. At present it is no exaggeration to say that the medical attendance for the sick poor outside the hospital is a ghastly farce, and very few indeed of those brought in for burial have ever been seen by a doctor until they were dumped like dead dogs into the receiving room at the cemetery. I may say here that the proceedings in connection with the reception and interment of the dead are a scandal and disgrace to any community calling itself civilized, but matters have been so for years, and there is no demand on the part of the public for a change of methods. During the administration of the health board by Lieutenant Eames the sanitary state of Ponce was a steadily improving one, but so soon as his firm and wise rule ceased the old conditions were allowed to reappear, and to-day the actual state of things must be seen and smelled to be realized. In my report to the superior board of health I have dealt fully with the purely sanitary question involved, and a copy of it will be sent as soon as it is completed.

Very respectfully,

WM. FAWCETT SMITH,
Secretary Superior Board of Health of Porto Rico.

Hon. WILLIAM ELLIOTT,
Commissioner of Interior.

APPENDIX L.—*Sanitary survey of Arecibo.*



The following description of Arecibo is typical of the conditions throughout the island. It serves to illustrate a few of the difficulties necessarily encountered by health officers:

Situation: On the northwest coast of the island on the Atlantic Ocean.

Elevation above the sea: From sea level to 11.88 meters at highest point.

How most conveniently reached: (1) By French railroad from San Juan, good; (2) by same road from Camuy; (3) there is a road in fair condition running east and west along the coast, good for wagons; (4) from Utuado and Lares there are fair roads, the former a wagon road.

General character of surrounding country: A level plain in most part of alluvial material, very fertile. Much of the material of this plain has been brought down from the mountains by the Rio Grande.

Nature of soil and underlying rock: (1) The soil is alluvial, mixed with sand. In places there is clay sufficient for brickmaking. (2) The underlying rock is a porous coral limestone. In places a conglomerate (sand rock) cemented with iron oxide is found.

Ground water is found at what depth? At sea level, from 1 to 30 feet.

Temperature in summer: Maximum, 33° C.; minimum, 27° C. Temperature in winter: Maximum, 26° C.; minimum, 22° C. Remarks on temperature: Never frost. Never sudden changes.

Dry season extends from January to May; wet season extends from May to December.

Violent storms: At what season do they most frequently occur and at what intervals? At intervals of years, in July and November. There is no special season for rains. Most frequent in September and June.

Total population of city: 14,685; count made by Hospital Corps men.

Number of houses in city, 979; number houses unfit for use, 213; number houses with no closet accommodations, 762; average number persons to a house, 15; average number families to a house, 3; number families living in one room, 1.

Sanitary condition of portions of city where poorest people live: The streets are kept clean, but the shacks in which the poor live are very dirty and without closets. Excreta are thrown along the beach and produce a horrible stench. There are some very dirty alleys in the districts where the poor live. The back yards, which here exist to some extent, are in a very dirty condition.

Remarks on possible improvements: There are two districts, one along the sea on the north, the other along the river on the south, where the houses are so small, the alleys so narrow, the whole districts so unutterably filthy, that Arecibo for her own credit should have the two districts completely cleared of houses, the streets widened, and the new houses built on modern ideas. This work should be ordered on sanitary grounds.

Until each house has a closet of its own, public closets should be erected in the two poor districts of the city.

Streets, general condition: On the 1st of March, 1899, there were a number of the streets in bad condition. Since that date considerable work has been done on them and all the principal ones are now in very fair condition. Some of the smaller ones are still in need of attention.

How paved? All the principal streets are macadamized and in good condition. Some of the smaller ones have only earth bottoms.

How often are the streets swept? Three times a week. They are kept quite clean.

Sidewalks: There is considerable repairing needed in case of the sidewalks, and the attention of the alcalde was called to them.

Are any dangers to life or limb observable in streets or sidewalks? Along the river were places where a wagon might upset. There were many holes in the sidewalks where a person might fall on a dark night.

Remarks on streets and sidewalks: The streets where the shacks exist should be widened. The sidewalks should all be repaired. An order should be issued prohibiting the throwing of litter into the streets.

Sewers: The two streets leading from the hospital to the Plaza de la Cruz have sewers. They are only rain sewers, however.

What is the nature and condition of house connections? There are thought to be practically none. A few exist which are wholly untrapped.

Where do the public sewers discharge? Into the river on the south side of the town, Rio Santiago.

Where do private sewers discharge? Into cesspools in the yards, or, in some cases, under the houses themselves. A few into the public sewer.

How are sewers constructed, and what is their general condition? Of brick, and condition good.

Is the surface drainage efficient? Yes; Arecibo is well situated for surface drainage; and also for underground sewers.

What is the general condition of plumbing in the town? There is practically none, so far as is known. A very little of crude kind exists.

Remarks on sewers: It will be quite an easy matter to sewer Arecibo, which will follow the introduction of the new water supply. If the people are wise, they will attend to this at an early date, and compel all property owners to connect with same and to abandon all privies and cesspools in town.

Garbage, cesspools, privies: What is the general condition of privies and cesspools? Generally very bad.

Where are the privies situated? Generally in or adjoining the kitchen.

How often, on the average, are they cleaned? Apparently never. They are made so large that through drainage and evaporation they never become full.

How is the garbage and waste of the city disposed of? Carried in carts to a dumping ground on the north of the city, along the sea.

Where is the garbage and waste dumped? Along the sea, on the northwest of the town.

What is the condition of the garbage dump? Except that the dump is too near the city, no complaint can be made.

Remarks on policing city: Dead animals are thrown out along the beach and left unburied and are very offensive, as people bathe in the ocean at this point. This should be prohibited.

Water supply: At present cisterns to all the better houses. Also from the river on the north of the city. There is now in course of construction public waterworks upon a tributary of the Rio Grande, at a point about 4 miles above the city, from which an ample supply of wholesome water will soon be obtained. At this writing the work has ceased for lack of funds.

Does the quality vary at different seasons? It is thought not.

Amount of water supply: Is the supply unfailing? The new supply will be unfailing. The cisterns often fail, and water is sold in the city from ox carts. This was true in 1899.

Is there ever a total failure of the water supply? No. Two unfailing rivers flow by the city. There is no public supply at present.

How are the poorest people supplied with water? They carry it from the river.

17. What are the bathing facilities in the community? Excellent, if they would use them. They have a river on the south, the ocean on the north, and ocean and river meet on the east. They seldom bathe in either, however.

Suggestions on improvement of water supply: The mountain water should be introduced as soon as possible. Public hydrants should be at every street corner for the use of the poor. Arrangements should be made for a sufficient number of fire plugs.

18. The cathedral: Sanitary condition of and of all its surroundings: The cathedral is in good repair and good sanitary condition. There is some carelessness in keeping the pavement outside free from litter.

19. The court-house is located in the ayuntamiento. General sanitary condition of court room itself good. Closets filthy, and no real effort to keep them clean. They are the same closets used by municipal officers.

20. Town hall is located in center of city, facing the plaza. General sanitary condition: It is dirty all the time. Condition of closets filthy. State all purposes to which town hall is put. (1) Court-house, (2) city hall and all city offices are in it, also council chamber, (3) jail, (4) police station, (5) public library, (6) emergency station where all accidents are treated before being sent to hospital, (7) public meetings, balls, etc.

21. The market. Located on Plaza Montezuma. Is there a market house? No; it is held in open air. Sanitary condition, excellent. Name market days. Seven days in week from 5 a. m. to 12 m. What improvements are suggested? A good market house.

22. What food inspections are practiced? Cattle are inspected before they are killed, and branded if considered fit for food. Milk is inspected with lactometer.

What is their value? Probably but small value. Yet I saw two men in prison for selling watered milk in the city.

23. Is milk inspected? How? By lactometer. A fine of 5 pesos for first adulteration, 10 pesos for second adulteration, 15 pesos for third adulteration.

24. What is the general sanitary condition of groceries? Fair. There are, however, numbers of small fruit stores which are very dirty. The inspectors reported groceries "cleaner than in San Juan."

25. What is sanitary condition of bakeries? Clean and excellent.
26. Slaughterhouses, where situated: On beach north side town. General condition very fair.
At what hour are cattle killed? Four p. m.
27. The jail, where situated? In rear of town hall. Closet facilities, two; condi ion of, very poor; ventilation, scarcely sufficient on lower floor; lighting, sufficient; cooking facilities, very limited; water supply, source, a cistern; quality, suspicious; condition of bedding, good; each prisoner furnishes his own bedding.
Is the jail dry and clean, or otherwise? It is dry, but is not kept clean. I had it cleaned twice, but it should be cleaned daily.
Are separate apartments furnished for men and women? Yes, in theory. Yet I found men and women together twice, one being an insane woman.
Are there any insane persons in this jail? There were in March, but I think they have been removed.
Are there any children under 12 years of age confined? No, not at present; there were some but a little older in March, but they have been released.

MUNICIPAL HOSPITALS.

Condition as to police and order: Fair.
Heating: None needed.
Lighting: Candles and petroleum lamps.
Water supply: Two large cisterns in court.
Lavatory and bathroom fittings and discharge of waste: Into a sewer which discharges into ground by percolation.
Requirements as to bathing: None.
Plumbing: None.
Disposal of excreta, mode and efficiency. What special precautions are enforced regarding the disposal of typhoid excreta? Disinfect with carbolic-acid solution.
Means and orders for subduing fire: None.
Amusements provided: None. Patients are allowed to take walks outside of hospital, smoke, and play cards.

WARD.

Number of patients present: 36.
Number of wards: 3. For what purpose used: Sick. Number of beds: 36.
Floor space per bed: 68 square feet. Air space: 1,195 cubic feet.
Ventilation, efficiency: Good. How secured: Through windows and doors.
What special provision is made for infectious diseases? Isolated in separate building in rear of hospital, now used by United States soldiers.
Condition as to police and order: Better than Porto Rican homes; not so good as the native hospitals at Ponce.
Condition of beds, bedding, and furniture: Fair.
Provision for patients' effects: None.
Ward for infectious diseases and isolation ward: One in rear of hospital; a house in county is also used.

KITCHEN AND MESS ROOM.

Condition as to police and order: Fair.
Quality of food, especially meat and bread: Good; the bread comes from the city bakery.
Is cooking properly done? Yes.
Is there a special diet kitchen? No.
Is any diet table observed? No. Who orders daily fare? House physician.

OUTBUILDINGS AND GROUNDS.

Condition of deadhouse: There is none; dead taken at once to cemetery.
Other outbuildings: In fair condition.
Are grounds improved? No. Trees: None. Grass: None.
Drainage, sewerage, police: One drain leading from kitchen to fields in rear of hospital.

HOSPITAL REPAIRS AND ALTERATIONS.

State, in order of importance, repairs, etc., needed. There should be constructed a sewer leading to rear of buildings with modern connections with kitchen, bathroom, lavatories, isolation ward, etc. The grounds should be improved. A portico over front door would improve appearance of building.

HOSPITAL SUPERINTENDENCE.

Number nurses: 2 female, 4 male.
Qualifications of nurses: None required.
Condition of patients: They are more comfortable than at home. They are fairly well fed, but after numerous visits it must be said that very little treatment is received by the patients, who are left to suffer and die of diseases susceptible of treatment.

REMARKS ON PERSONNEL AND HOSPITAL.

There is a resident practicante who is permitted to carry on other business, and apparently does little for the sick. He was one of the public vaccinators. There is a staff of visiting physicians, who appear to give little attention to the hospital.
Asylums and other institutions for care of poor: Except the hospital there are no institutions for the poor in Arecibo.
What provision is made for poor (not bedridden)? There is a poor-tax levied, said to have been 2,000 pesos the last year, which is distributed by the alcalde.

PESTHOUSE.

Where located: In rear of hospital. Capacity: About 15. How furnished: Not at all now; in use by United States troops as post hospital. General sanitary condition: Fair. How are dead bodies disposed of: Taken to cemetery at once.
The alcalde also selects some house in the county, when he thinks same is needed, for smallpox. The shack is burned after the recovery or death of the patient.

CEMETERIES.

Number: One. Location: West of the city about 1 mile, near the ocean. General condition: Good, but kept with no taste whatever; ground not leveled after burials. For what period do bodies of poor remain buried: Three to five years.
Where are the bodies of those dying of contagious diseases buried: In same cemetery. They are not dug up before three years elapse, it is claimed.

PREVAILING DISEASES.

Prevailing diseases of city and district: Anæmia, tuberculosis, dysentery, gastro-enteritis, rheumatism, tetanas, meningitis, malaria, typhoid fever, fever amarilla, cirrhosis and atrophy of liver, cancer.
Is there any leprosy? One case. Is elephantiasis prevalent? One or two cases. Does goitre exist? No.
What epidemic diseases have occurred within five years? Give years, extent and mortality. Measles in 1899; smallpox nine years ago.
What diseases of domestic animals communicable to man exist in the district: Glanders, common, and recognized as contagious; tuberculosis of cattle exists to some extent; anthrax exists and recognized as contagious; hydrophobia, believes there is some. Santiago Seijo.
Mr. Seijo says both glanders and anthrax are often communicated to human beings. Tuberculosis is very rare in cattle on this island.
Does an efficient board of health exist? Not an efficient board. Are vital statistics kept? Yes. For what length of time? Since 1885. Do the church records contain any vital statistics? Yes. What are they and their value? Good for marriages, births, and deaths.

MISCELLANEOUS.

Farm products, money crops: Sugar, coffee, tobacco, in the order given.
Minor crops: Sweet and white potatoes, yams, beans, and pease of several varieties, cabbage, turnips, pumpkins, eggplant fruit, upland rice, indian corn, onion, radish, lettuce, cucumber, parsley.
Principal fruits: Banana, orange, lemon, lime, pineapple, mango, medlar, tamarind, pajuil, pomegranate, cocoanut, alligator pear, mamey, guanabana.
Principal industries: Three bakeries, daily product 3,300 loaves, employing 16 men; 1 tannery, capacity 8 hides per day, 6 men employed; 3 coffee-cleaning houses, 14 men, 300 women employed, capacity 400 hundredweight per day; 2 liquor manufacturing firms, capacity about 60 quarts per day; 1 carbonated-water bottling establishment, capacity 60 dozen per day; 5 brickyards, average capacity 15,000 per week; 8 distilleries, employing 3 men each, average capacity 250 hogsheads per year; 2 candy manufactories, 6 men, producing about $10 worth candy per day.
Household industries: Needlework by women; 1 man who works in papier-maché.

SCHOOLS.

Number in city: 6; number teachers, 6.
Name of school: Elemental; first class, boys.
Number of teachers: 2; number of pupils, 115.
Is the light good? Yes.
Do seats face windows? Some do, others do not.
How are blackboards and charts placed in reference to windows? Not between.
Number of rooms in school: Two, and connecting hall also used.
Is air pure or impure in rooms? Pure (as outside). The school is in a rather bad portion of town.
What seats and desks are provided? Benches without backs. This is common rule.
What is the closet accommodation? Poor.
The condition of closet: Unsanitary.
Location of closet: In building, just back of kitchen.
Improvements suggested for this school: That the benches be replaced by modern school furniture; that the closets be cleaned; that a window be cut in rear wall.
Since above report, this school has been removed to a better portion of the town.
Name of school: Elemental for girls; street, Monserrate.
Number of teachers: 1; number of pupils, 71.
Is the light good? Yes.
Do seats face windows? Yes.
How are blackboards and charts placed in reference to windows? None.
Number of rooms in school: One.
Is air pure or impure in rooms? Pure.
What seats and desks are provided: Benches all around the room next wall. Chairs in center room.
What is the closet accommodation? Fair.
The condition of closet: Unsanitary.
Location of closet: Off the kitchen.
Improvements suggested for this school: This school needs desks and books.
It is a private school, supposed to be first class. There was a strong odor of the unwashed in the room, believed not to belong wholly to pupils.
Name of school: Boys' Superior.
Number of teachers: 1; number of pupils, 90.
Is the light good? Yes.
Do seats face windows? No.
How are blackboards and charts placed in reference to windows? Properly.
Number of rooms in school: Two.
Is air pure or impure in rooms? Pure.
What seats and desks are provided: Benches and desks; writing desk for 6.
What is the closet accommodation? Good.
The condition of closet: Good.
Location of closet: In rear of house.
Improvements suggested for this school: The appointments in this school are very fair. The teacher needs to be modernized. There is no fault to find with sanitary condition.
Name of school: Elementary for girls; street, on alley south of Gaudia Hotel.
Number of teachers: 1; number of pupils, 75.
Is the light good? Yes.
Do seats face windows? No.
How are blackboards and charts placed in reference to windows? None.
Number of rooms in school: One.
Is air pure or impure in rooms? Pure.
What seats and desks are provided: Mere benches.
What is the closet accommodation? Good; rear house.
The condition of closet: Good.
Location of closet: Rear house.
Improvements suggested for this school: This school is in better condition than the private school, and the teacher seems to have some idea of her responsibilities.
Name of school: Mrs. Jaujauries; street, Plaza.
Number of teachers: 1; number of pupils, 115.
Is the light good? Yes.
Do seats face windows? No.
How are blackboards and charts placed in reference to windows? Properly.
Number of rooms in school: One.
Is air pure or impure in rooms? Pure.
What seats and desks are provided: Chairs.

What is the closet accommodation? Same as used by family.
The condition of closet: Fair.
Location of closet: Off the kitchen.
Improvements suggested for this school: Desks should be supplied the pupils. This school is well located and no fault is to be found with its sanitary conditions.

REMARKS ON SANITARY CONDITION OF CITY AND DISTRICT.

In Arecibo the huts along the ocean and the Rio Santiago should be burned and those portions of the town rebuilt with wide streets and alleys. This suggestion is made because Arecibo can not afford to perpetuate the present condition of affairs.

The sewage at present discharges into the Rio Santiago. This stream is closed by a sandbar, and at the city forms, with the Rio Grande, a lagoon. When water-closets are extensively used this lagoon will in all probability become a source of danger to the town. At some considerable expense the sewage of the city can be discharged into the ocean.

For town and city the only hope is in (1) universal education, (2) diversified agriculture, (3) an appreciation of moral and sanitary laws. The slow work of education and evolution only will redeem the people.

G. G. GROFF.

ABRIDGMENT

OF

REPORT

OF THE

BOARD OF CHARITIES OF PORTO RICO

FOR THE

PERIOD ENDING JUNE 30, 1900,

EMBRACING THE WORK OF

PORTO RICO RELIEF.

BY

MAJOR JOHN VAN R. HOFF,
SURGEON, U. S. ARMY,
CHIEF SURGEON DEPARTMENT OF PORTO RICO, PRESIDENT BOARD OF CHARITIES OF PORTO RICO, AND IN CHARGE OF PORTO RICO RELIEF.

19709—01——12

A STREET IN YABUCOA.

REPORT

OF THE

BOARD OF CHARITIES OF PORTO RICO.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., July 15, 1900.

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: In submitting a report of the board of charities of Porto Rico from the date of its organization, August 9, 1899, to that of the inauguration of the civil government, May 1, 1900, and of the Porto Rico relief work, I have the honor first to invite your attention to the following statement of financial transactions and supplies received and distributed:

STATEMENT OF ACCOUNTS.

Cost of maintaining the board of charities of Porto Rico and the institutions under its control, by months.

FROM AUGUST 1, 1899, TO JANUARY 31, 1900, IN DETAIL.

Institutions.	Personnel.		Salaries of personnel.	Subsistence, clothing, medicines, material, etc.	Total.
	Employees.	Inmates.			
August, 1899.					
Office of board	3				$172.63
Insane asylum	20	121	$485.00	$535.14	1,020.14
Orphan asylum	24	381	643.33	1,305.17	1,948.50
Leper asylum	3	16	55.00	126.76	181.76
Total					3,323.03
September, 1899.					
Office of board	3				248.96
Insane asylum	20	122	413.00	483.43	896.43
Orphan asylum	26	382	893.33	1,456.54	2,349.87
Leper asylum	3	16	55.00	139.35	194.35
Total					3,689.61
October, 1899.					
Office of board	4				266.62
Insane asylum	19	121	385.00	431.98	816.99
Orphan asylum	26	369	699.80	1,639.65	2,339.45
Leper asylum	3	16	55.00	141.95	196.95
Total					3,620.00
November, 1899.					
Office of board	5				267.88
Insane asylum	19	118	385.00	606.90	991.90
Orphan asylum	26	360	987.19	1,666.86	2,654.05
Leper asylum	3	16	55.00	157.15	212.15
Total					4,125.98
December, 1899.					
Office of board	4				259.42
Insane asylum	19	123	401.00	467.31	868.31
Orphan asylum	31	352	1,028.99	2,190.23	3,219.22
Leper asylum	3	18	55.00	146.12	201.12
Total					4,548.07
January, 1900.					
Office of board	5				238.50
Insane asylum	23	145	409.00	729.54	1,138.54
Orphan asylum	38	351	1,100.33	1,640.36	2,740.69
Leper asylum	3	18	55.00	160.58	215.58
Total					4,333.31
Grand total					23,640.00

Cost of maintaining the board of charities of Porto Rico, etc.—Continued.

FROM FEBRUARY 1, 1900 (DATE OF SEPARATION OF THE INSANE ASYLUM AND ORPHAN ASYLUM), TO APRIL 30, 1900.

Institution.	Personnel.		Salaries of employed.	Subsistence.					Clothing, bedding, and shoes.
	Employees.	Inmates.		Bread.	Meat.	Milk.	Miscellaneous.	Total.	
February, 1900.									
Office of board	5		$235.00						
Insane asylum	33	144	685.67	$103.82	$122.32	$36.54	$182.23	$444.91	$85.36
Leper asylum	3	18	55.00	5.42	34.20	13.90	62.85	116.37	14.76
Boys' charity school	27	228	664.27	154.73	175.14	39.20	471.12	840.19	346.25
Girls' charity school	21	160	341.34	107.21	127.52	44.10	63.24	342.07	363.08
March, 1900.									
Office of board	5		284.50						
Insane asylum	33	153	801.77	128.78	170.00	65.10	348.59	712.47	
Leper asylum	3	18	55.00	6.00	35.34	16.42	71.38	129.14	3.90
Boys' charity school	41	202	815.35	58.45	172.99	83.64	360.87	675.95	27.84
Girls' charity school	20	164	326.34	53.68	152.98	52.62	184.32	443.60	367.55
April, 1900.									
Office of board	15		655.17						
Insane asylum	33	150	786.77	53.40	194.88	66.60	417.08	731.96	
Leper asylum	4	18	64.00	6.10	31.32	17.64	59.10	114.16	
Boys' charity school	41	168	995.45	69.60	184.09	53.46	318.72	625.87	83.62
Girls' charity school	23	164	367.00	50.75	136.42	46.90	198.84	432.91	

Institution.	Washing and sewing material.	Lights, fuel, and oil.	Utensils and furniture.	Medicines, dressings, and instruments.	Minor repairs.	Stationery and supplies.	Sundries.	Total.
February, 1900.								
Office of board						$4.50		$239.50
Insane asylum	$10.80	$29.23	$47.19	$21.65	$159.15	8.50	$9.60	1,502.06
Leper asylum				34.71				220.84
Boys' charity school		61.55	31.31	66.90	162.19	61.36	29.89	2,263.91
Girls' charity school		17.60	96.37		87.23	17.10	12.96	1,277.75
Total								5,504.06
March, 1900.								
Office of board						19.32		303.82
Insane asylum	12.78	28.77	83.00	36.31	35.56	70.35	28.09	1,809.10
Leper asylum			4.98	13.09				206.11
Boys' charity school	17.20	39.35	245.91	109.40	36.92	80.05	27.46	2,075.43
Girls' charity school	25.20	10.25		87.62	69.52		15.20	1,345.28
Total								5,739.74
April, 1900.								
Office of board						17.09		672.26
Insane asylum	28.80	30.01	15.60	17.75	23.25		5.10	1,639.24
Leper asylum		8.06	.64	1.80				188.66
Boys' charity school	1.50	87.40	162.82		95.33	3.96	15.60	2,071.55
Girls' charity school		22.42	227.64				9.60	1,059.57
Total								5,631.28
Grand total								40,515.08

Statement showing the amounts advanced and disbursed by the various special disbursing officers having in charge hurricane relief funds, for medicines, supplies, and necessary expenditures.

Capt. H. S. Bishop, at Manati:		
To warrant 53, August 12, 1899		$1,000.00
By disbursements:		
August 12 to August 31	$663.88	
September 1 to September 30	56.70	
October 1 to October 31	24.00	
November 1 to November 30	45.30	
December 1 to December 31	33.15	
January 1 to February 28, 1900	54.30	
March 1 to March 17	19.20	
By balance transferred to Lieutenant Haines	103.47	
		1,000.00
Lieut. John T. Haines, at Manati:		
To balance received from Captain Bishop, March 18		103.47
By disbursements March 18 to March 31	6.00	
By balance paid treasurer (Rec. 2477)	97.47	
		103.47
Capt. H. R. Lee, at Lares:		
To warrant 54, August 12, 1899		1,000.00
By disbursements:		
August 21 to August 31	254.18	
September 4 to September 20	13.07	
October 1 to October 31	16.95	
By deposit with treasurer (Rec. 536)	500.00	
By balance paid treasurer (Rec. 788)	215.80	
		1,000.00
Lieut. S. G. Chiles, at Aguadilla:		
To warrant 55, August 12, 1899		1,000.00
By disbursements:		
August 22 to September 30	21.00	
October 1 to October 31	40.89	
November 1 to November 30	.60	
By deposit with treasurer (Rec. 424)	750.00	
By balance paid treasurer (Rec. 978)	187.51	
		1,000.00
Capt. Eben Swift, at Humacao:		
To warrant 56, August 12, 1899		1,000.00
By disbursements:		
August 1 to August 31	555.88	
September 1 to September 30	224.32	
October 1 to October 31	140.62	
By balance paid treasurer (Rec. 772 and 806)	79.18	
		1,000.00
Lieut. Col. C. C. C. Carr, at Mayaguez:		
To warrant 57, August 12, 1899		1,000.00
By disbursements, August 18 to August 31	689.76	
By balance paid treasurer (Rec. 417)	310.24	
		1,000.00
Lieut. Col. D. W. Burke, at San Juan:		
To warrant 58, August 12, 1899		1,000.00
By amount transferred to Lieutenant Wells		1,000.00
Lieut. F. L. Wells, at San Juan:		
To amount received from Lieutenant-Colonel Burke		1,000.00
By disbursements, August 12 to September 30	158.80	
By balance paid treasurer (Rec. 558)	841.20	
		1,000.00

Statement showing the amounts advanced and disbursed by the various special disbursing officers having in charge hurricane relief funds, etc.—Continued.

Capt. W. E. Almy, at San German:		
To warrant 59, August 12, 1899		$1,000.00
By amount transferred to Captain Schuyler		1,000.00
Capt. W. S. Schuyler, at San German:		
To amount received from Captain Almy		1,000.00
By disbursements, August 22 to August 26	$432.05	
By balance paid treasurer (Rec. 278)	567.95	
		1,000.00
Capt. C. H. Watts, at Adjuntas:		
To warrant 60, August 12, 1899	1,000.00	
To additional amount advanced	150.00	
		1,150.00
By disbursements, August 9 to August 31	1,072.02	
By disbursements, September 1 to September 31	77.98	
		1,150.00
Maj. A. L. Myer, at Ponce:		
To warrant 61, August 12, 1899		1,000.00
By disbursements:		
August 12 to August 31	118.72	
September 1 to September 30	62.05	
October 1 to October 31	30.04	
By balance paid treasurer (Rec. 1012)	789.19	
		1,000.00
Capt. A. C. Macomb, at Arecibo:		
To warrant 62, August 12, 1899		1,000.00
By disbursements:		
August 14 to September 30	274.37	
October 1 to October 31	2.25	
November 1 to February 28	200.00	
By balance paid treasurer (Rec. 1783)	523.38	
		1,000.00
Capt. F. W. Foster, at Cayey:		
To warrant 63, August 12, 1899		1,000.00
By disbursements, August 12 to August 31	659.79	
By balance paid treasurer (Rec. 446)	340.21	
		1,000.00
Capt. H. W. Wheeler, at Aibonito:		
To warrant 64, August 12, 1899		1,000.00
By disbursements:		
August 12 to August 31	763.07	
September 1 to October 31	179.62	
November 1 to November 30	19.83	
December 1 to December 31	14.00	
January 1 to February 28	23.48	
		1,000.00

Account of receipts and disbursements.—Contribution fund.

[See p. 291 for list of contributors.]

1899.			
Aug.	Received by contributions		$9,588.60
Sept.	Balance from August	$9,588.60	
	Received by contributions	4,066.50	
			13,655.10
	Disbursements:		
	Reimbursement for payment of interpreter, Mayaguez	3.60	

Account of receipts and disbursements.—Contribution fund—Continued.

1899.				
Sept.	Disbursements—Continued.			
	Transferred to division of Ponce (relief expenses)		$200.00	
	Services of physicians		423.86	
	Services and supplies at general supply depot		503.84	
	Transferred to division of Manati (relief expenses)		100.00	
	Printing		28.83	
				$1,260.13
	Balance			12,394.97
Oct.	Balance from September		12,394.97	
	Received by contributions		1,569.00	
				13,963.97
	Disbursements:			
	Emergency relief supplies at Adjuntas		1,742.99	
	Interpreter, Mayaguez		22.20	
	Provisional hospital, Ponce, services		247.06	
	Printing		1,034.92	
	Transferred to division Manati (relief expenses)		100.00	
	Inspectors for board (salaries and expenses)		298.28	
	Physicians, expenses		4.50	
	General supply depot, services		447.50	
	Rent of depot at Caguas		12.72	
	Clerk, office of board		12.00	
				3,922.17
	Balance			10,041.80
Nov.	Balance from October			10,041.80
	Disbursements:			
	Services, board of charities		24.00	
	Emergency relief supplies, Arecibo		1,020.08	
	Services, division of Mayaguez		84.00	
	Services, general supply depot		414.76	
	Emergency relief supplies, Cayey		5.97	
	Reward for discovery of fraud		10.00	
	Printing		16.75	
	Purchase of medicines at Patillas		174.93	
	Services, division of Adjuntas		54.00	
	Provisional hospital, Ponce, services and supplies		415.67	
	Rent of supply depot, Aibonito		7.00	
				2,227.16
	Balance			7,814.64
Dec.	Balance from November			7,814.64
	Disbursements:			
	Services, general supply depot		380.00	
	Provisional hospital, Ponce, services and supplies		426.76	
	Services, board of charities		88.00	
	Practicante, Utuado		28.33	
	Emergency supplies, division of Arecibo		120.54	
	Rent of supply depot, Adjuntas		36.00	
	Services, Mayaguez		24.00	
	Reimbursement for damage to storehouse, Fajardo		30.00	
	Printing		157.85	
	Rent of depot, Aibonito		7.00	
	Medicine and services, division of Caguas		15.25	
				1,313.73
	Balance			6,500.91

Account of receipts and disbursements.—Contribution fund—Continued.

1900.			
Jan.	Balance from December	$6,500.91	
	Reimbursement by freight contractors for supplies stolen en route, Lares	262.97	
			$763.88
	Disbursements:		
	Services, general supply depot	350.00	
	Provisional hospital, Ponce, services and supplies	418.55	
	Rent of depot, Aibonito	7.00	
	Services, division of Mayaguez	132.00	
	Rent of depot, Arecibo	9.00	
	Printing	76.38	
	Practicante at Mameyes	50.00	
	Medicine at Patillas	66.77	
	Services, board of charities	52.00	
			1,161.70
	Balance		5,602.18
Feb.	Balance from January	5,602.18	
	Received by contributions	192.35	
	Received by sale of glassware donation	26.75	
	Reimbursement for supplies lost and stolen en route	82.62	
			5,903.90
	Disbursements:		
	Printing	47.79	
	Services, Mayaguez	91.80	
	Provisional hospital, Ponce, services and supplies	359.16	
	Services, general supply depot	207.50	
	Transferred to division inspector, Cayey	500.00	
	Practicante at Mayaguez	50.00	
	Services, office of board	46.00	
			1,302.25
	Balance		4,601.65
Mar.	Balance from February	4,601.65	
	Received by contributions	500.00	
	By transfer from commanding officer, Manati	7.95	
	By sale of damaged supplies	3.00	
			5,112.60
	Disbursements:		
	Provisional hospital, Ponce, services and supplies	174.17	
	Rent of depot, Aibonito	7.00	
	Rent of depot, San German	4.42	
	Emergency supplies, Arecibo	24.10	
	Services, Mayaguez	96.00	
	Services, Adjuntas	27.00	
	Rent of depot, Adjuntas	36.00	
	Printing	44.00	
	Services, general supply depot	257.50	
	Services, board of charities	141.00	
			811.19
	Balance		4,301.41
Apr.	Balance from March	4,301.41	
	Received by contributions	5.00	
			4,306.41
	Disbursements:		
	Printing	274.37	
	Services, Mayaguez	42.00	

Account of receipts and disbursements.—Contribution fund—Continued.

1900.			
Apr.	Disbursements—Continued.		
	Provisional hospital, Ponce, services	$1.18	
	Rent of depot, San German	25.28	
	Services, general supply depot	265.00	
	Supplies, office of board	1.15	
			$608.98
	Balance		3,697.43
May.	Balance from April	3,697.43	
	Received by contributions	25.00	
			3,722.43
	Disbursements:		
	Services, Mayaguez	31.20	
	Services, Bayamon	12.00	
	Medicines, Cayey	70.46	
	Printing and supplies	47.76	
	Practicante, Mayaguez	7.20	
			168.62
	Balance		3,553.81
June.	Balance from May	3,553.81	
	By transfer from general supply depot	22.34	
	By error in payment of checks at bank	.21	
			3,576.36
	Disbursements:		
	Supplies, office of relief	2.56	
	Printing	3.00	
			5.56
	Balance		3,570.80
July.	Balance from June	3,570.80	
	By transfer from Division of Ponce (unexpended balance)	114.65	
			3,685.45
	Disbursements: Printing		2.70
	Balance on hand August 1, 1900		3,682.75

RECAPITULATION.

Total receipts:		
By contributions	15,946.45	
By reimbursement for supplies lost or stolen	345.59	
By sale of supplies	29.75	
By error at bank	.21	
		16,322.00
Total disbursements	12,784.19	
Less unexpended balance returned by depots	144.94	
		12,639.25
Balance, August 1, 1900		3,682.75

Account of disbursements from the allotment of $25,000 from the appropriation for refunding customs revenues, for the purpose of aiding hospitals, paying expenses of food distribution, etc.

1900.			
Apr.	Placed to credit of disbursing officer Porto Rican relief		$25,000.00
	Disbursements:		
	Purchase of relief medicines	$385.41	
	Purchase of hospital supplies	92.04	
			477.45
	Balance		24,522.55
May.	Balance from April		24,522.55
	Disbursements:		
	Services in office of Porto Rico relief	267.53	
	Services, general supply depot	302.50	
			570.03
	Balance		23,952.52
June.	Balance from May		23,952.52
	Disbursements:		
	Services, general supply depot	302.50	
	Services, office Porto Rico relief	137.80	
	Purchase of relief medicines	1,828.05	
	Services, Mayaguez	97.44	
	Services, Jayuya	15.00	
	Rent of depot at Manati	3.60	
	Services, Bayamon	27.00	
	Printing	110.04	
	Hospital maintenance, Aguadilla	60.00	
			2,581.43
	Balance		21,371.09
July.	Balance from June		21,371.09
	Disbursements:		
	Services, Mayaguez	74.40	
	Relief medicine	1,334.66	
	Services, office of Porto Rico relief	16.53	
	Orphanage, Arecibo—supplies	75.00	
	Physicians, division of Arecibo	200.00	
	Rent of depot, Adjuntas	19.00	
	Maintenance of hospital, Aguadilla	30.00	
	Maintenance of hospital, Adjuntas	87.20	
	Services, general supply depot	60.88	
	Printing	1.86	
			1,899.53
	Balance on hand August 1		19,471.56

Receipts and distribution of food for hurricane sufferers of Porto Rico, August 8, 1899, to July 15, 1900.

GROSS SUPPLIES PER TRANSPORT.

	Date of arrival.	Rice.	Beans.	Codfish.	Bacon.	Miscellaneous.	Total.
	1899.	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*
U. S. Commissary	Aug. 16	4,300	7,100	.....	.....	.....	11,400
Do	Aug. 17	13,900	22,000	.....	.....	.....	35,900
U. S. A. T. McPherson	Aug. 19	603,871	646,359	.....	.....	19,200	1,269,430
U. S. S. Panther	Aug. 30	.....	31,550	.....	.....	239,300	270,850
U. S. A. T. McClellan	Aug. 31	505,600	465,915	268,544	.....	694,346	1,934,405
S. S. Evelyn	Sept. 1	350	.....	15,800	.....	2,100	18,250
U. S. Commissary	Aug. 29	.....	.....	.....	.....	101,200	101,200
U. S. A. T. Kilpatrick	Sept. 8	336,000	302,819	640	.....	472,550	1,112,009
S. S. Mae	Sept. 12	.....	.....	.....	.....	39,900	39,900
U. S. A. T. Wright	Sept. 14	22,400	30,300	.....	.....	323,000	375,700
U. S. A. T. Burnside	Sept. 15	858,166	857,670	274,112	.....	300	1,990,248
U. S. A. T. McClellan	Sept. 18	146,700	107,500	.....	.....	11,138	265,338
S. S. Hildeur	Sept. 29	.....	206,795	.....	.....	.....	206,795
U. S. A. T. Buford	....do....	505,248	426,043	279,410	.....	.....	1,210,701
S. S. Philadelphia	Oct. 2	353,320	334,077	.....	.....	.....	687,397
U. S. A. T. McPherson	Oct. 11	848,648	960,285	280,624	.....	500	2,090,057
U. S. Commissary	Oct. 21	509,903	507,980	284,000	.....	2,300	1,304,183
U. S. A. T. Burnside	Oct. 26	851,920	699,380	196,776	.....	.....	1,748,076
U. S. Commissary	Oct. 31	33,600	149,820	93,464	.....	.....	276,884
U. S. S. Resolute	....do....	350,400	54,740	60,672	.....	74,100	539,912
U. S. A. T. McPherson	Nov. 4	1,000	62,350	.....	.....	32,800	96,150
U. S. A. T. McClellan	Nov. 8	.....	.....	.....	.....	600	600
U. S. A. T. Burnside	Dec. 11	805,508	.....	100,000	100,000	1,400	1,001,908
U. S. A. T. McClellan	Dec. 22	789,423	.....	99,840	100,000	.....	989,263
U. S. A. T. Buford	Dec. 27	350,052	242,255	80,000	80,000	.....	752,307
	1900.						
U. S. A. T. McPherson	Jan. 2	849,452	240,160	90,000	80,000	100	1,259,712
U. S. A. T. Buford	Jan. 17	573,950	283,837½	70,974	71,420	.....	1,000,181½
U. S. A. T. McPherson	Jan. 23	572,152	291,627½	71,040	71,420	.....	1,006,239½
U. S. A. T. McClellan	Jan. 30	568,649	284,359	71,680	81,368	.....	1,006,056
U. S. A. T. Burnside	Feb. 6	574,124	292,771	71,550	71,420	30,400	1,040,265
U. S. A. T. McClellan	Mar. 13	572,048	288,233	142,866	.....	.....	1,003,147
U. S. A. T. Burnside	Mar. 27	566,399	276,637	73,850	61,400	.....	978,286
U. S. A. T. Kilpatrick	Apr. 2	.....	.....	.....	10,000	.....	10,000
U. S. A. T. McPherson	Apr. 9	1,044,639	328,052	133,090	155,331	.....	1,661,112
U. S. A. T. Crook	Apr. 17	705,607	517,301	93,556	83,392	.....	1,399,856
U. S. A. T. Burnside	Apr. 25	549,659	297,411	71,680	71,456	.....	990,206
U. S. A. T. Crook	May 8	370,234	168,401	43,450	69,938	.....	652,023
U. S. Commissary	May 12	.....	.....	.....	.....	41,100	41,100
U. S. A. T. McPherson	May 21	335,287	174,326	42,336	15,700	.....	567,649
Accumulation of transport receipts taken up at depot	1899. Dec. 4	100,000	300,000	.....	.....	.....	400,000
Total	.....	15,267,509	9,858,054	3,009,954	1,122,845	2,086,334	31,344,696
Receipts from miscellaneous sources	.....	865,354	124,975	104,868	677	4,660	1,100,534
Grand total	.....	16,132,863	9,983,029	3,114,822	1,123,522	2,090,994	32,445,230

GENERAL DEPOT, SAN JUAN, P. R.

	Received.	Disbursed.	Balance turned over to commissioner of interior.
	Rations.	*Rations.*	*Rations.*
Rice	16,132,863	15,878,697	254,166
Beans	9,983,029	9,982,529	500
Codfish	3,114,822	3,114,572	250
Bacon	1,123,522	1,123,522	.....
Miscellaneous	2,090,994	2,088,094	2,900
Gross	32,445,230	32,187,414	257,816

Consolidated report of receipts and distribution of food for hurricane sufferers, etc.

SUPPLIES RECEIVED.

Inspection district.	Rice.	Beans.	Codfish.	Bacon.	Miscellaneous.	Total.	Date closed.
	Rations.	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*	1900.
Adjuntas	279,486	286,765	81,182	4,600	53,350	705,383	July 15
Aibonito	758,260	531,734	145,430	68,686	94,770	1,598,880	Do.
Aguadilla	671,478	429,479	147,808	29,654	125,650	1,404,069	Do.
Arecibo	1,621,623	1,034,091	360,928	95,379	273,000	3,385,021	Do.
							1899.
Arroyo	158,876	104,525	38,164	4,408	55,700	361,673	Oct. 5
Bayamon	1,390,780	912,679	209,670	113,736	131,700	2,758,565	Oct. 25
Caguas	347,320	225,114	74,792	7,800	110,000	765,026	Oct. 5
Cayey	260,716	227,729	76,266	7,502	64,300	636,513	Nov. 15
Fajardo	70,820	58,668	18,066	----------	13,500	161,054	Sept. 26
Guanica	175,612	181,299	58,222	----------	54,840	469,973	Nov. 11
Humacao	145,448	124,759	48,216	----------	123,200	441,623	Oct. 28
							1900.
Lares	443,700	359,490	113,380	22,800	60,560	999,930	Mar. 16
Manati	3,910,005	2,120,923	747,696	240,116	188,900	7,207,640	July 15
Mayaguez	2,677,158	1,643,476	485,068	259,632	186,640	5,251,974	Do.
Ponce	1,221,276	779,804	202,952	85,593	199,450	2,489,075	Do.
San Juan	288,602	115,541	55,436	68,250	9,400	537,229	Do.
San German	359,740	251,592	105,184	10,600	66,000	793,116	Mar. 16
Total	14,780,900	9,387,668	2,968,460	1,018,756	1,810,960	29,966,744	
Miscellaneous distribution	1,097,797	594,861	146,112	104,766	277,134	2,220,670	
Grand total	15,878,697	9,982,529	3,114,572	1,123,522	2,088,094	32,187,414	

POPULATION STATISTICS.

Substations.[1]	Population.	Indigent.	Indigent supplied through planters.	Dead.	At work.
Adjuntas:					
Adjuntas	19,571	10,000	9,750	1,553	1,500
Guayanilla[2]	9,632	----------	----------	----------	----------
Peñuelas[2]	12,293	----------	----------	----------	----------
Utuado[2]	43,675	----------	----------	----------	----------
Yauco[2]	27,337	----------	----------	----------	----------
Aibonito:					
Aibonito	8,541	3,000	1,065	337	300
Barranquitas	8,163	5,500	796	412	450
Barros	14,883	4,000	4,480	652	200
Aguadilla:					
Aguadilla	17,997	5,600	150	572	313
Aguada	10,575	4,500	----------	566	280
Isabela	14,890	4,000	----------	560	279
Moca	12,415	1,500	----------	577	800
Rincon	6,661	3,000	----------	226	375
San Sebastian	16,289	----------	----------	----------	----------
Arecibo:					
Arecibo	37,019	11,000	4,113	1,780	1,250
Camuy	11,123	4,000	----------	296	275
Hatillo	10,439	3,000	175	264	278
Quebradillas	7,424	2,600	65	239	380
Utuado	----------	20,000	16,609	3,283	500
Arroyo:					
Arroyo	4,868	3,000	489	220	250
Guayama	12,798	2,000	280	620	----------
Patillas	11,202	2,000	12	610	700
Salinas	5,824	1,500	----------	253	50
Bayamon:					
Bayamon	19,897	8,900	4,628	705	60
Comeiro	8,251	6,000	3,905	430	60
Corozal	11,507	7,000	1,210	533	84
Dorado	3,804	1,000	328	114	50
Naranjito	8,106	3,800	3,658	298	140
Toa Alta	7,908	2,000	175	246	30
Toa Baja	4,032	3,000	----------	76	46

[1] Complete returns from substations had not been received at the time of the completion of this report. Amounts distributed to substations are consequently estimated. These estimates are based on the number of indigent in the respective districts.

[2] Transferred.

Receipts and distribution of food for hurricane sufferers, etc.—Continued.

POPULATION STATISTICS—Continued.

Substations.	Population.	Indigent.	Indigent supplied through planters.	Dead.	At work.
Caguas:					
Aguas Buenas	7,988	3,400	2,328	333	150
Caguas	19,925	5,900	1,067	733	274
Gurabo	8,723	1,600	761	258	300
Juncos	8,418	2,500	115	341	163
San Lorenzo		2,400	745	446	254
Cayey:					
Cayey	14,556	5,000	1,505	700	700
Cidra	7,557	5,300	605	253	450
Fajardo:					
Fajardo	12,655	2,100			317
Ceiba		700	15	456	77
Luquillo		500			74
Rio Grande	12,297	1,700	800	403	40
Guanica:					
Guayanilla		3,000	678	574	700
Yauco		5,000	120	1,685	1,500
Humacao:					
Humacao	13,706	1,800		847	1,000
Culebra	704	290		17	
Naguabo	4,072	1,200		389	800
Mannabo	6,323	800	254	327	500
Piedras	8,567	900			300
Vieques	5,964	1,200		180	
Yabucoa	14,132	1,500	20	728	1,000
Lares:					
Lares	21,173	6,000	5,530	1,211	703
San Sebastian		5,300	2,832	542	550
Manati:					
Manati	14,195	9,000	4,641	791	1,905
Barcelonita	9,362	7,000	1,984		1,840
Ciales	18,196	12,000	9,262	1,014	4,782
Morovis	11,220	8,000	3,334	574	2,658
Vega Alta	6,077	1,500	385	185	259
Vega Baja	10,155	6,000	1,257	336	425
Mayaguez:					
Mayaguez	36,042	3,000	12,368	1,921	2,055
Añasco	13,537	6,020	2,858	723	511
Cabo Rojo	16,086	7,400	675	457	597
Hormigueras	7,466				
Las Marias	11,401	6,000	2,875	559	2,000
Maricao	8,304	5,000	1,708	613	1,000
Ponce:					
Ponce	56,212	15,000	1,435	3,190	1,600
Coamo	15,152	10,000	470	410	2,000
Juana Diaz	27,919	15,000	3,411	1,319	5,000
Peñuelas		5,600	110	561	1,500
Santa Isabel	4,859	1,800	100	155	25
San Juan:					
San Juan	32,555	1,700		956	
Carolina	12,654	2,000	95	303	200
Hato Grande	13,545				
Loiza	12,728	500		157	400
Trujillo Alto	5,691	1,700	65	117	95
Rio Piedras	13,758	1,800	85	404	52
San German:					
San German	20,393	4,000	402	759	500
Lajas	8,784	1,200		268	272
Sabana Grande	10,604	3,100	1,049	408	500
Total	957,779	314,310	117,832	42,025	48,678
Less by revision of population statistics	4,536				
Total	953,243				

Receipts and distribution of food for hurricane sufferers, etc.—Continued.

SUPPLIES RECEIVED.

	Rice.	Beans.	Codfish.	Bacon.	Miscellaneous.	District total.
Adjuntas:	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*
Adjuntas	279,486	286,765	81,182	4,600	53,350	705,383
Aibonito:						
Aibonito	189,565	132,933	36,357	17,172	23,693	399,720
Barranquitas	315,942	221,555	60,595	28,619	39,487	666,198
Barros	252,753	177,246	48,478	22,895	31,590	532,962
						1,598,880
Aguadilla:						
Aguadilla	201,443	128,844	44,342	8,896	37,695	421,220
Aguada	161,155	103,075	35,474	7,117	30,156	336,977
Isabela	147,725	94,485	32,518	6,524	27,643	308,895
Moca	53,718	34,358	11,825	2,372	10,052	112,325
Rincon	107,437	68,717	23,649	4,745	20,104	224,652
						1,404,069
Arecibo:						
Arecibo	437,838	279,205	97,450	25,752	73,710	913,955
Camuy	162,162	103,409	36,093	9,538	27,300	338,502
Hatillo	113,514	72,386	25,265	6,677	19,110	236,952
Quebradillas	97,297	62,045	21,655	5,723	16,380	203,100
Utuado	810,812	517,046	180,465	47,689	136,500	1,692,512
						3,385,021
Arroyo:						
Arroyo	55,607	36,897	13,472	1,556	19,662	127,194
Guayama	38,130	24,564	8,969	1,036	13,090	85,789
Patillas	38,130	24,563	8,968	1,036	13,090	85,787
Salinas	27,009	18,501	6,755	780	9,858	62,903
						361,673
Bayamon:						
Bayamon	389,418	255,550	58,708	31,846	36,876	772,398
Comeiro	264,248	173,409	39,837	21,610	25,023	524,127
Corozal	305,972	200,789	46,127	25,022	28,974	606,884
Dorado	41,723	27,380	6,290	3,412	3,951	82,756
Naranjito	166,894	109,522	25,160	13,648	15,804	331,028
Toa Alta	83,447	54,760	12,580	6,824	7,902	165,513
Toa Baja	139,078	91,269	20,968	11,374	13,170	275,859
						2,758,565
Caguas:						
Aguas Buenas	72,937	47,274	15,706	1,638	23,100	160,655
Caguas	128,508	83,292	27,673	2,886	40,700	283,059
Gurabo	34,732	22,511	7,479	780	11,000	76,502
Juncos	55,572	36,019	11,967	1,248	17,600	122,406
San Lorenzo	55,571	36,018	11,967	1,248	17,600	122,404
						765,026
Cayey:						
Cayey	126,708	110,449	36,989	3,638	31,185	308,969
Cidra	134,008	117,280	39,277	3,865	33,114	327,544
						636,513
Fajardo:						
Fajardo	29,744	24,641	7,588	----------	5,667	67,640
Ceiba	9,915	8,213	2,529	----------	1,895	22,552
Luquillo	7,082	5,867	1,807	----------	1,354	16,110
Rio Grande	24,079	19,947	6,142	----------	4,584	54,752
						161,054
Guanica:						
Guayanilla	64,976	67,081	21,542	----------	20,291	173,890
Yauco	110,636	114,218	36,680	----------	34,549	296,083
						469,973
Humacao:						
Humacao	33,453	28,695	11,090	----------	28,336	101,574
Culebra	5,818	4,990	1,929	----------	4,928	17,665
Naguabo	23,272	19,961	7,714	----------	19,712	70,659
Mannabo	14,545	12,476	4,822	----------	12,320	44,163
Piedras	17,454	14,971	5,786	----------	14,784	52,995
Vieques	21,817	18,714	7,232	----------	18,480	66,243
Yabucoa	29,089	24,952	9,643	----------	24,640	88,324
						441,623

Receipts and distribution of food for hurricane sufferers, etc.—Continued.

SUPPLIES RECEIVED—Continued.

	Rice.	Beans.	Codfish.	Bacon.	Miscellaneous.	District total.
Lares:	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*	*Rations.*
Lares	236,492	191,608	60,432	12,152	32,278	532,962
San Sebastian	207,208	167,882	52,948	10,648	28,282	466,968
						999,930
Manati:						
Manati	821,101	445,394	157,016	50,424	39,669	1,513,604
Barcelonita	625,601	339,347	119,631	38,419	30,224	1,153,222
Ciales	1,094,801	593,858	209,355	67,233	52,892	2,018,139
Morovis	703,801	381,766	134,585	43,221	34,002	1,297,375
Vega Alta	117,300	63,628	22,431	7,203	5,667	216,220
Vega Baja	547,401	296,930	104,678	33,616	26,446	1,009,071
						7,207,640
Mayaguez:						
Mayaguez	294,487	180,782	53,357	28,560	20,530	577,716
Añasco	588,975	361,564	106,715	57,120	41,060	1,155,434
Cabo Rojo	721,823	443,739	130,968	70,100	50,394	1,417,024
Las Marias	588,974	361,567	106,715	57,120	41,060	1,155,436
Maricao	482,899	295,824	87,313	46,732	33,596	946,364
						5,251,974
Ponce:						
Ponce	378,596	241,739	62,915	26,534	61,830	771,614
Coamo	256,468	163,759	42,620	17,975	41,884	522,706
Juana Diaz	390,808	249,537	64,945	27,390	63,824	796,504
Peñuelas	146,553	93,577	24,354	10,271	23,934	298,689
Santa Isabel	48,851	31,192	8,118	3,423	7,978	99,562
						2,489,075
San Juan:						
San Juan	63,492	25,419	12,196	15,015	2,068	118,190
Carolina	75,037	30,041	14,413	17,745	2,444	139,680
Loiza	20,202	8,088	3,881	4,778	658	37,607
Trujillo Alto	63,492	25,419	12,196	15,015	2,068	118,190
Rio Piedras	66,379	26,574	12,750	15,697	2,162	123,562
						537,229
San German:						
San German	172,675	120,764	50,488	5,088	31,680	380,695
Lajas	50,364	35,223	14,726	1,484	9,240	111,037
Sabana Grande	136,701	95,605	39,970	4,028	25,080	301,384
						793,116
Miscellaneous distribution	1,097,797	594,861	146,112	104,766	277,134	2,220,670
Grand total	15,878,697	9,982,529	3,114,572	1,123,522	2,088,094	32,187,414

Receipts and distribution of miscellaneous supplies for hurricane sufferers of Porto Rico, August 8, 1899, to July 15, 1900.

RECEIPTS.

	Date of report.	Medical supplies.			Clothing.				Hats, boxes.	Soap, boxes.	Miscellaneous.	Building material.		General miscellany.
		Boxes.	Assorted vials and boxes.	Miscellaneous.	Barrels.	Boxes.	Packages.	Miscellaneous.				Nails, kegs.	Roofing rolls.	
	1899.													
U. S. T. McPherson	Aug. 22					27								
U. S. S. Panther	Aug. 30	2					12	5 bags	3	25		52		2,006 boards. 500 scantling.
U. S. T. McClellan	Sept. 2	20		7 baskets		23	3						400	
S. S. Evelyn	do	7				24			47					
U. S. S. Panther	Sept. 6					6	5					248		
S. S. Evelyn	do	1				5	1		4					
U. S. T. Kilpatrick	Sept. 9	2			12	62	2							
U. S. T. McClellan	Sept. 13	1												
S. S. Caracas	do				14	4								
U. S. T. Burnside	Sept. 20	28		6 carboys		3	1							
McCurdy	do						4							
U. S. T. McClellan	do						1							
U. S. T. Wright	Sept. 16	2				39	24			1				2 sacks hardware.
U. S. T. Burnside	do						4							
U. S. T. McClellan	Sept. 23					3	6							
U. S. T. Buford	Sept. 30	1				4	3							
U. S. T. McPherson	Oct. 14	1			2	5					8 bales sheeting			1 box can openers.
U. S. T. Burnside	Oct. 28	88		1 hogshead		9					2 bales sheeting 9 bales cotton batting.			
U. S. S. Resolute	Nov. 4	209		10 barrels	11	7	15			12				10 rolls wrapping paper. 10 rolls blotting paper. 1 box stationery. 9 bundles wire netting. 1 case glassware. 3 cases candles. 1 case pins. 1 box thread.
U. S. T. McPherson	Nov. 11	273			4	9	1		2	1				15 spring cots.

U. S. T. McClellan	do	8			6	2	1				1 box muslin 1 box towels		1 box ink. 1 box shaving brushes. 30 boxes stationery.
U. S. S. Resolute	do												
U. S. T. Kilpatrick	Nov. 25	12									1 box dry goods		8 boxes stationery.
U. S. T. McPherson	do	10					3						
U. S. T. McClellan	Dec. 2		1,200										
U. S. T. Burnside	Dec. 16	1			5	4							
U. S. T. McClellan	Dec. 23					1							
U. S. T. Buford	Dec. 30					5							
	1900.												
U. S. T. McPherson	Jan. 2				1	2							
U. S. T. McPherson	Jan. 23					4							
Grand total		666	1,200	7 baskets 6 carboys 1 hogshead 10 barrels	55	248	86	5	56	39	3 boxes 19 bales	300	400	2,066 boards. 500 scantling. 43 boxes. 29 bundles. 5 cases. 2 sacks. 15 spring cots.

DISTRIBUTION.

Inspection district.	Medical supplies, boxes.	Clothing.				Hats, boxes.	Soap, boxes.	Miscellaneous.	Building material.		General miscellany.
		Barrels.	Boxes.	Packages.	Miscellaneous.				Nails, kegs.	Roofing, rolls.	
Adjuntas		3	11			3	1		25	16	
Aibonito		2	13	1		5	3		10	10	
Aguadilla			5	9		2			27		
Arecibo		1	32			9	2		33	94	511 boards. 152 scantling. 1 case candles.
Arroyo			4				1		15	25	
Bayamon		2	15		2 bags	3	2		21	25	
Caguas			7	2			2		7	25	
Cayey		1	10	2		2			3	10	
Fajado			2	2							
Guanica			7	1			1		21	15	
Humacao		2	10	2		4	2	1 bale sheeting	21	25	1 case candles.
Lares			8			2	1		36	10	
Manati		8	24	2		6	2		21	40	

Receipts and distribution of miscellaneous supplies for hurricane sufferers of Porto Rico—Continued.

DISTRIBUTION—Continued.

Inspection district.	Medical supplies, boxes.	Clothing.				Hats, boxes.	Soap, boxes.	Miscellaneous.	Building material.		General miscellany.
		Barrels.	Boxes.	Packages.	Miscellaneous.				Nails, kegs.	Roofing, rolls.	
Mayaguez			8			3	2		35	40	
Ponce	1		15	2		4	3			45	
San Juan			4		2 bags				4		
San German			3				2		15	20	
Total	1	19	178	23	4	43	24	1	294	400	511 boards. 152 scantling. 2 cases candles.

Miscellaneous distribution.	Medical supplies.			Clothing.				Hats, boxes.	Soap, boxes.	Miscellaneous.	Building material.		General miscellany.
	Boxes.	Assorted vials and boxes.	Miscellaneous.	Barrels.	Boxes.	Packages.	Miscellaneous.				Nails, kegs.	Roofing, rolls.	
Woman's Aid Society	1			29	47	62	1 bag	13		1 box dry goods. 9 bales cotton batting. 8 bales sheeting.			1 case pins. 1 box thread.
Medical suppy depot	657	1,200	7 baskets. 6 carboys. 1 hogshead. 10 barrels.						12	1 box muslin. 1 box towels.			38 boxes stationery. 1 box ink. 10 rolls blotting paper. 1 box shaving brushes. 9 bundles wire netting. 10 bundles wrapping paper. 15 spring cots.
Gen. G. W. Davis	6												
Board of charities:													
Cath. Finley, Ponce				3	8	1							
Alcalde Caguas					4								

Quartermaster's department:													
Utuado					4								
San Sebastian				1	4								
Mrs. Van Leenhoff, Arecibo.				1									
Mrs. Gaskell, Ponce					2								
Rev. George Pratt					1								
Cooperage, S. D												6	
Total	664	1,200	7 baskets, 6 carboys, 1 hogshead, 10 barrels	34	70	63	1	13	12	17 bales, 3 boxes	6		
Shortage due to repacking	1			2					3	1			
Culebra supply depot													74 boards. 9 scantling.
Charity school													1,481 boards. 339 scantling. 2 sacks hardware.
By inspection districts	1			19	178	23	4	43	24	1 bale	294	400	511 boards. 152 scantling. 2 cases candles.
Grand total	666	1,200	7 baskets, 6 carboys, 1 hogshead, 10 barrels	55	248	86	5	56	39	[1]22	300	400	2,066 boards. 500 scantling. 43 boxes. 29 bundles. 2 sacks. 3 cases. 15 spring cots.

[1] Packages.

REPORT OF OFFICER DETAILED TO AUDIT ACCOUNTS OF RELIEF WORK.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF THE JUDGE-ADVOCATE,
San Juan, August 23, 1900.

The ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: In compliance with instructions from the commanding general conveyed by letter from your office under date of July 25, ultimo, directing me "to audit returns of receipts and issues by persons who were charged with the issue of food to the destitute of Porto Rico who were sufferers from the effects of the hurricane in 1899," I have the honor to submit the following report:

The organization of the board of charities on August 12, four days after the hurricane, was the first step toward the work of relief. The details of this organization, with the plan of operations by which it received and distributed the enormous bulk of food stuffs, clothing, medicines, lumber, roofing, nails, and other material which was poured into the island from the United States with most lavish generosity, have been made the subject of exhaustive reports by Major Hoff, president of the board, and Major Cruse, receiving quartermaster. They therefore need no detailed mention here.

An examination of the returns and vouchers shows that the work as organized was well carried out.

The first issue was made on August 16, 1899, and consisted of beans and rice advanced or loaned from stores on hand in the depot and post commissaries. On August 19 the first consignment from the United States arrived by the transport *McPherson*, after which date supplies continued to come in for several months at intervals of five or six days.

The issue of beans and rice above referred to was returned to the Subsistence Department from supplies thus received by transport. All stores received through the chief commissary were properly taken up and receipted for by Major Cruse, who thereafter shipped them to relief stations on requisition duly approved by the board of charities Distributing depots were established at convenient points; issues made to these depots were reported to the board by Major Cruse on semi-weekly returns. As the work progressed and became better organized these returns (after September 22) were rendered at the end of each week.

Army officers (and in some instances noncommissioned officers) were stationed at the distributing depots and returned receipts in duplicate for supplies furnished them. Issues were also made in like manner to the medical supply depot, the Women's Aid Society of San Juan, the Benevolent Society of Ponce, the Municipal Asylum of San Juan, and to planters and other private individuals, such issues being covered by proper receipts, which, with some exceptions noted below, are filed with the semiweekly and weekly returns. From the distributing stations issues were made in smaller quantities to subdepots in charge of noncommissioned officers and intelligent privates, who in turn delivered the food direct to the people on ration tickets, which were filed as vouchers to their returns. (Attention is invited in this connection to the detailed statement of Colonel Nye, chief commissary, herewith inclosed, showing the total receipts and issues and money values thereof, aggregating $831,480.16. This statement relates to supplies furnished by the United States Government, and does not include donations from private sources.)

The same system was followed in the distribution of supplies received from private sources, although in many cases such shipments were not accompanied by invoices nor even listed on the ship's manifest. In these cases the stores were taken up on the returns according to the marks on the packages, or where no marks were found contents were verified and weight estimated. In these cases notations were made explanatory of the absence of the invoice or of the incorrectness of the parcel list or manifest. Thus, in the column of remarks in the return for September 9 is found the notation: "There is no correct invoice of the *McClellan's* cargo. These figures show the amount supposed to be over."

An assorted cargo of flour, beans, herring, soap, clothing, lumber, nails, etc., donated by the citizens of Philadelphia, was brought in the U. S. S. *Panther*. Four thousand eight hundred and forty-seven parcels were counted out, the weights of which were estimated and taken on the returns as aggregating 1,631,620 pounds. In the urgency for relief at this date (September 4) time did not permit the opening of packages and verifying weights and contents. Later on the lists became more accurate, although in the case of clothing and medicines itemized inventories were not sent, such shipments being listed as "so many boxes of clothing," etc. Under these circumstances it was manifestly impossible to keep a record by weights and amounts with the exactness required for military supplies by Army Regulations.

The supplies, having once been landed, however, were all carefully stored and placed under guard, and all issues, except those of clothing as above noted and some issues of the Adjuntas district noted below, can be traced by means of the returns and vouchers from the general supply depot to the various districts, divisions, and subdepots.

The ration tickets contained a receipt which was generally signed by the recipient—though not in all cases—many illiterates signing only by cross mark or thumb impression. These tickets, numbering several millions, were returned with the vouchers and filed with the returns for examination and verification, if desired.

In some few cases discrepancies are noted between the invoices and receipts. These may be explained by the fact that issues were made at the central depot without breaking packages, resulting in a difference between the amount called for and the amount shipped out. Through these gains, and also through the receipt of stores without invoice or manifest, there was a considerable accumulation at the depot, which from time to time was taken up and duly accounted for. Thus, on September 3 there was taken up as "found at depot" 13 barrels herring, 5 barrels compressed food; on September 21, 1 barrel groceries; on December 4, 300,000 pounds beans, 100,000 pounds rice; June 7, 31,840 pounds beans; June 30, 74,246 pounds rice, and various other items in smaller quantities. In the Adjuntas division the returns show a total receipt and distribution of 277,610 pounds beans, 250,426 pounds rice, 80,282 pounds codfish, 12,600 pounds bacon, 16 boxes of clothing, and other supplies in less quantities. Major Cruse's returns check with these amounts except as to a shipment entered on his return for September 13, consisting of 9,155 pounds beans, 24,000 pounds rice, 15 barrels corned beef, 60 boxes hard bread, 1 barrel pork, 5 boxes tongue, 2 boxes compressed food, and 5 boxes of oatmeal. The only record of this shipment is the return of September 13, referred to, there being no invoice, receipt, or other evidence of its shipment among the papers. It is probable that these articles were entered on a requisition for Adjuntas and thus dropped as having been shipped. There is no record of any bill of lading covering

them. The accumulations in the storehouse in excess of issues and amounts dropped through wastage, and which were taken up as "found at depot," doubtless include these missing items of rice and beans. There was also taken up on June 30, 29 boxes of hard bread, which may be a portion of the 60 boxes above enumerated. The remaining items do not appear to be accounted for. As this was one of the early transactions in the relief work when there was still considerable haste and confusion, it is probable that these stores were issued without the formality of taking receipts.

Regarding the entire management of the relief work, considering its stupendous proportions, the character of the people to be succored and assisted, and the difficulties of transportation in reaching them, the returns and records indicate that it was conducted with business-like care and that the relief was honestly and intelligently applied.

Very respectfully,

A. C. SHARPE,
Acting Judge-Advocate.

Recapitulation of money values.

Purchases in New York	$823,027.67	
Stores on hand, Department of Porto Rico	8,452.49	
		$831,480.16
Distributed from San Juan	824,828.12	
Distributed at other points	6,652.04	
		831,480.16

Statement of cost of supplies issued to Porto Rican destitutes in the Military Department of Porto Rico from stores on hand from August 8, 1899, to November 30, 1899, by Lieut. Col. F. E. Nye, assistant commissary-general of subsistence, chief commissary, Department of Porto Rico.

Depot, San Juan	$1,800.45
Post, Arecibo	171.76
Post, Humacao	67.23
Post, Aibonito	603.58
Post, Ponce	5,809.47
Total from stores on hand	8,452.49

F. E. NYE,
Lieutenant-Colonel and Assistant Commissary-General of Subsistence, Chief Commissary.

SAN JUAN, *June 16, 1900.*

Statement of articles, and quantities, issued from Ponce, Aibonito, and Arecibo to Porto Rican destitutes from August, 1899, to June, 1900, inclusive.

Hard bread	pounds	60,740	Flour	pounds	19,172
Beans	do	1,249	Rice	do	977
Bacon	do	3,720	Fresh beef	do	5,504½
Tomatoes	gallons	180	Tomatoes	3-pound cans	286
Salt	pounds	198	Hominy	pounds	42
Coffee	do	1,268	Peaches, dried	do	481
Prunes	do	484	Apples, dried	do	503
Sugar, C. L.	do	88	Sugar, granulated	do	24
Sugar, issue	do	2,087	Baking powder	do	96
Salmon	cans	988	Soap	do	523
Pepper	pounds	54	Milk	cans	48
Mackerel	do	326¼	Potatoes	pounds	8,533
Onions	do	2,293	Vinegar	gallons	115
Matches	boxes	108			

Money value, $6,652.04.

SAN JUAN, *June 30, 1900.*

Statement of articles and amounts of issues to Porto Rican destitutes from August, 1899, to June, 1900, inclusive, by Lieut. Col. F. E. Nye, assistant commissary-general of subsistence, chief commissary, Department of Porto Rico.

Bacon	pounds	1,098,914	Hominy	pounds	30,400
Hard bread	do	268,080	Crackers, milk	do	327½
Corn meal	do	5,900	Tongue, beef, 2-pound cans		2,268
Beans	do	8,695,916	Beef:		
Rice	do	14,483,966	Roast	pounds	2,560
Codfish	do	2,868,498	Do	2-pound cans	368
Fish:			Do	6-pound cans	8
Hake	do	51,200	Corned	pounds	15,953
Haddock	do	28,928	Boiled	do	21
Beans, baked, 3-pound cans		11,856			27,782,505
Pease	pounds	455,696			
Oatmeal	do	15,258			

Money value, $824,828.12.

F. E. NYE,
Lieutenant-Colonel and Assistant Commissary-General of Subsistence.

SAN JUAN, *June 20, 1900.*

GENERAL REVIEW OF ECONOMIC CONDITIONS.

On September 25, 1899, I had the honor to present a preliminary report of the relief work, in which was given an outline of organization, estimates of material, transportation, time, etc.

On November 30 I also submitted a report on the progress of relief up to that date, and some recommendations. As both of these reports may be of interest in a general review of the work, I venture to append copies of them hereto. (See pp. 298.)

ECONOMIC CONDITIONS.

Economic conditions in Porto Rico on August 7, 1899, may be said to have been in unstable equilibrium. An almost bloodless invasion had occurred, in which in the course of a few weeks, practically without harm to people and property, the sovereignty of Spain was substituted by that of the United States, and their military government was replaced by ours. The gentle outflow of money caused by the departure of the Spanish army and sympathizers was more than compensated for by what we brought, and all was as well as usual with Porto Rico until that fateful 8th of August. To be sure, food had been issued to the people from the military stores during the spring of 1899, and many thousands of them had been employed on public works, on account of lack of other work and consequent suffering, but I am persuaded that this is an old story in Porto Rico.

The value of all kinds of property here on that day may be said to have been not much less than $100,000,000, which was mortgaged to the extent of $10,000,000. The population numbered 960,000, or about 260 to the square mile, and nearly 800,000 could neither read nor write. Most of these lived in bark huts, and were in effect the personal property of the landed proprietors. When work was obtained, they received 35 cents for a day's labor, which they would invest in sugar, tobacco, coffee, rum, lard, salt, and occasionally clothing; when not, they continued to live on plantains, bananas, potatoes, and other so-called fruta minora of the country. They were poor beyond the possibility of our understanding, and if they were so fortunate as to have enough for the current hour they were content.

Of the 800,000 peons, more or less, 250,000 depended, directly or indirectly, upon the coffee production here.

The condition of the coffee industry was flourishing. Probably not less than $25,000,000 was invested in it, and, exclusive of home consumption, $3,600,000 worth of coffee was annually exported.

A promising crop, valued at $7,500,000, was rapidly reaching maturity, giving work to thousands and sustenance to hundreds of thousands of the laboring classes, when suddenly in a night this crop was destroyed and the farms which produced it damaged to the extent of one-half of their value. Other industries and other properties suffered as well, but none to the extent of or with such far-reaching results as the coffee farms.

The hurricane of August 8, 1899, is not without precedent in Porto Rico. History records over thirty visitations of this character, but there is good reason to believe that none reached the proportions of this, and certainly none ever threatened so large a population. The actual conditions obtaining during the storm are impossible of description, and the immediate results are but barely recounted in the reports from all sources which are on file in this office. These reports are of the utmost value, for they are the statements of eyewitnesses, and in any account of this period of the history of Porto Rico can not be ignored. I have therefore quoted them in extenso.

It is an interesting fact that Porto Rico, though an agricultural and stock-raising country, does not produce sufficient food to sustain her population. There seems to be no reason for this, certainly so far as area is concerned. Of her 2,000,000 acres over 1,000,000 are used as pasture and half a million are estimated to be in swamps, woods, and barrens, so that practically 75 per cent of the area is uncultivated. It is difficult to realize that much the larger part of the food of a million people here is raised on little more than 100,000 acres; but such is the fact.

The following table, taken from the official summary of the commerce of Porto Rico, furnishes valuable information bearing on the food supply, which is emphasized by the fact that the population in 1899 must have been many thousands more than in 1895:

Leading articles of import during the years 1894 and 1895 as compared with 1899

[Figures covering years 1894 and 1895 were taken from Bulletin No. 13, United States Department of Agriculture, Section of Foreign Markets.]

Articles.	1894.		1895.		1899.	
	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
Rice ..... pounds..	72,674,540	$2,226,763	74,145,046	$2,271,819	45,657,421	$1,030,875
Wheat flour ..... barrels..	238,794	1,434,075	170,460	1,023,694	104,492	456,309
Hog products ..... pounds..	8,678,006	1,139,554	9,706,556	1,274,618	10,858,729	601,912
Wines ..... gallons..	1,139,794	537,967	1,038,484	431,536	228,785	141,046
Vegetables, including pulse, pounds	18,838,826	509,854	15,633,877	400,660	3,024,140	223,497
Cheese ..... pounds..	1,322,351	347,289	1,286,178	337,790	923,468	116,454
Canned goods ..... do....	563,373	221,938	453,199	178,536	.....	16,955
Malt liquors and cider, gallons	137,976	105,299	139,803	107,243	.....	214,071
Cotton fabrics ..... pounds..	5,498,534	2,932,921	3,791,411	2,070,667	.....	1,585,438
Fish ..... do....	26,046,046	1,591,865	30,339,905	1,918,107	18,211,327	634,699
Wood and manufactures of ..	.....	1,391,766	.....	840,511	.....	255,509
Leather, and manufactures of	.....	877,153	.....	711,417	.....	460,317
Tobacco, and manufactures of ..... pounds..	466,143	409,617	790,317	692,335	.....	635
Iron and steel, and manufactures of ..... pounds..	13,541,931	769,860	11,884,866	658,413	8,812,509	296,994

Leading articles of import during the years 1894 and 1895, etc.—Continued.

Articles.	1894.		1895.		1899.	
	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
Fabrics of hemp, flax, etc., pounds	1,982,765	$412,549	2,364,135	$408,974	771,511	$151,951
Machinery and apparatus, pounds	3,227,002	296,629	3,350,354	344,879	.....	191,600
Paper, pasteboard, and manufactures of ..... pounds	3,680,280	305,043	2,376,014	196,197	.....	165,715
Mineral oils, crude and refined ..... pounds	5,630,004	122,776	11,355,094	169,629	304,190	36,868
Cotton yarns and threads, pounds	166,610	145,856	177,013	154,964	121,814	67,082
Woolens ..... pounds	181,218	262,648	107,574	154,947	.....	123,195
Glass and glassware ..... pounds	2,734,836	152,430	2,503,617	125,688	.....	55,029

The only available statistics as to the production of food crops is that furnished in a note dated December 15, 1899, from the bureau of agriculture, Porto Rico, in which it is stated that the annual production of corn in Porto Rico amounts to 18,000,000 pounds and of rice 10,000,000 pounds. No estimate is made of the production of potatoes, bananas, plantains, etc.

From the foregoing it will be seen that in 1899 there were received through the custom-house 78,949,577 pounds of food; add to which 19,093,811 pounds sent for the relief work up to December 31, and the total food importation for the year is found to be 98,043,338 pounds, against 134,735,221 pounds inported in 1895, when the home supply was normal and the population less. Under such conditions can anyone question the necessity for food distribution?

I will venture to add another table from the same source as throwing additional light upon this subject:

Leading articles of export during the years 1894 and 1895 as compared with those of 1899.

[Figures covering years 1894 and 1895 were taken from Bulletin No. 13, United States Department of Agriculture, Section of Foreign Markets.]

Articles.	1894.		1895.		1899.	
	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
Coffee ..... pounds	50,507,159	$11,496,082	40,243,693	$9,159,985	45,328,298	$5,164,210
Sugar ..... do	106,723,699	3,169,895	132,147,277	3,905,741	99,160,293	2,670,288
Molasses ..... do	15,957,253	244,466	35,219,823	539,571	[1] 3,415,058	647,373
Leaf tobacco ..... do	3,369,616	619,474	3,665,051	673,787	3,313,534	331,729
Cattle ..... number	4,306	166,212	3,674	141,816	.....	[2] 852,167
Hides and skins ..... pounds	762,197	63,389	646,884	53,799	.....	71,975

[1] Gallons. [2] Cattle are not shown separately; includes all animals.

It will be observed that nearly seven times as many cattle were exported and but a little over 3 per cent more hides, which, considering the increase in population, indicates that no more meat was eaten per capita than in 1895. The extraordinary exportation indicates not alone that prices were good, but also that the cattle owners feared the starving peons would not hesitate to help themselves to their neighbor's ox.

There never has been any doubt in my mind that since August last starvation has stared this people in the face, and food distribution

was absolutely necessary, but sometimes the thought has occurred to me that, liberal as the distribution was, there have been times and places where more food was needed than was received.

In spite of the temporary annihilation of the natural sources of food supply there was no lack of food for immediate wants for several weeks after the hurricane. On the contrary, there was even more food than usual, for the fruit, of which the trees were completely denuded, strewed the ground in every direction, and that which ordinarily would have proved a constant source of supply was there to eat or leave, with the assurance that in a few days it would no longer be available for edible purposes.

Based upon a canvass of the amount of food in possession of the merchants of San Juan August 10, 1899, it was estimated that there was in Porto Rico probably at least four weeks' supply of imported food available for the population, and that thereafter, unless there was some other reserve or further importation, in a short time thousands of people would starve to death.

The food vegetables raised here consist chiefly of beans, rice, corn, and potatoes. These are usually planted at the beginning of the rainy season—in May or June—and mature in July or August. There is a theory that crops will grow here throughout the year, but such certainly has not been the experience of the last year, which, however, was unusually dry, and during which, except in a few especially favored localities, all efforts to grow food crops have been futile.

The authorities were not slow to appreciate the immediate necessity for planting, and urged and assisted the people to do so. They required every planter who received relief supplies to plant for the benefit of each laborer a specified space with seeds of food plants, but very little resulted from these efforts, and thousands have been forced to subsist upon the roots and herbs which ordinarily fall to the share of the hogs.

A considerable percentage of the crops that had been gathered or were in the ground at the time of the hurricane, including the tubers, were lost—blown away with the destroyed houses or washed out of the ground to rot in the open.

Bananas and plantains furnish the pièce de résistance of the Porto Rican dietary. They grow luxuriantly everywhere, and the banana patch which is immediately contiguous to almost every shack more than takes the place of the vegetable gardens which accompany the cottages of our own thrifty farm laborers. An average sized bunch of bananas will supply sustenance to an ordinary Porto Rican family for a day, the laborer himself consuming two dozen bananas. It is no exaggeration to say that these two kindred plants furnish nearly one-half of all the food eaten by the entire population of this island, and there is no question that they were practically all destroyed to the roots on August 8 last.

The foregoing brief outline of food habits and food supplies will enable one to form some idea of what must have been the physical condition of the inhabitants at the moment of the catastrophe, what their resisting power was, and what was likely to result from a reduction by one-half of a dietary already ill balanced and meager.

A glance at the mortality statistics for the past ten years will show that the average death rate was practically 30 per thousand, increased in 1899 to 41 per thousand, due to the large number of deaths directly or remotely traceable to the hurricane.

Deaths of the past ten years.

Year.	Deaths.	Rate per 1,000.	Year.	Deaths.	Rate per 1,000.
1890	26,548	32	1895	25,600	29
1891	23,683	28	1896	24,601	27.7
1892	23,702	27.6	1897	30,556	34
1893	22,133	25.7	1898	33,350	35
1894	24,745	28.5	1899	39,918	41

In analyzing and localizing the death rate in Porto Rico it is found that there has been a marked increase of mortality in the mountain districts, in which are the coffee plantations. Here lives a considerable proportion of the population in abject poverty. As previously stated, the gross income of the entire family will hardly equal $2 a week. What wonder then that the comprehensive term "anæmia" is set down as the cause of the death of thousands of these people?

To be sure more die than should, or would, if they had adequate medical attention, for part of their anæmia is due to a blood-sucking intestinal parasite; but a larger part is due to insufficient alimentation. In a word, the people are suffering from chronic starvation.

The problem that presented itself for solution on the 9th of last August may be epitomized somewhat as follows:

A population of nearly a million souls, not less than one-quarter of which was already suffering from chronic starvation, was in a single night deprived of more than half of the food it had to depend upon for the following year, with no hope of being able to supplement it from home sources. Of this population probably 800,000 were penniless.

Of these over 200,000 were dependent upon the coffee industry, which suffered far more than any other, and which was utterly unable to support its laborers, even in the half-starved condition in which they had heretofore lived.

The government which was called upon to meet this emergency was military, and its treasury contained barely enough to maintain it with the utmost economy. To be sure, no war existed here, but it was a period between war and a time when Congress would provide a civil government, and the interval had to be filled in by some recognized authority. Fortunate it was in most respects that a soldier held the reins here, for it was a moment in which quick and decisive action was necessary. But the limitations of a military government, the inability to provide pecuniary means, except by a forced loan, which under the circumstances was inexpedient or even impossible, left but one course open—an appeal for food.

The experience of the world teaches that in widespread disaster involving large communities, in which the question of starvation is of the first importance, employment for wages furnishes the most satisfactory solution.

The direct distribution of food, except as a last resort, is demoralizing and pauperizing. It invites to idleness and its attendant evils, and blocks the channels of commerce at the periphery.

All this was realized by the authorities here; but there was no alternative.

The only public work that, even under the best conditions, could be undertaken in Porto Rico was road building. To be sure, nothing is more needed, and public money, if there had been any, could not have

been better invested. But road building was an impossibility during the period following the hurricane. It was the season of torrential rains, when the heavens open and the waters deluge the earth—2, 3, or even more inches fall in a single short downpour—and nothing except the most substantial road construction can withstand its force. Road building was therefore out of the question, and food distribution was the sole alternative.

But what of the proprietors? What of the farms that had to be restored, the houses rebuilt, the thousand and one things demanding labor usually paid for by private means, obtained from private sources? So far as such means were available they were employed, exactly as they would have been at home or in other countries; but unfortunately the analogy ceases here.

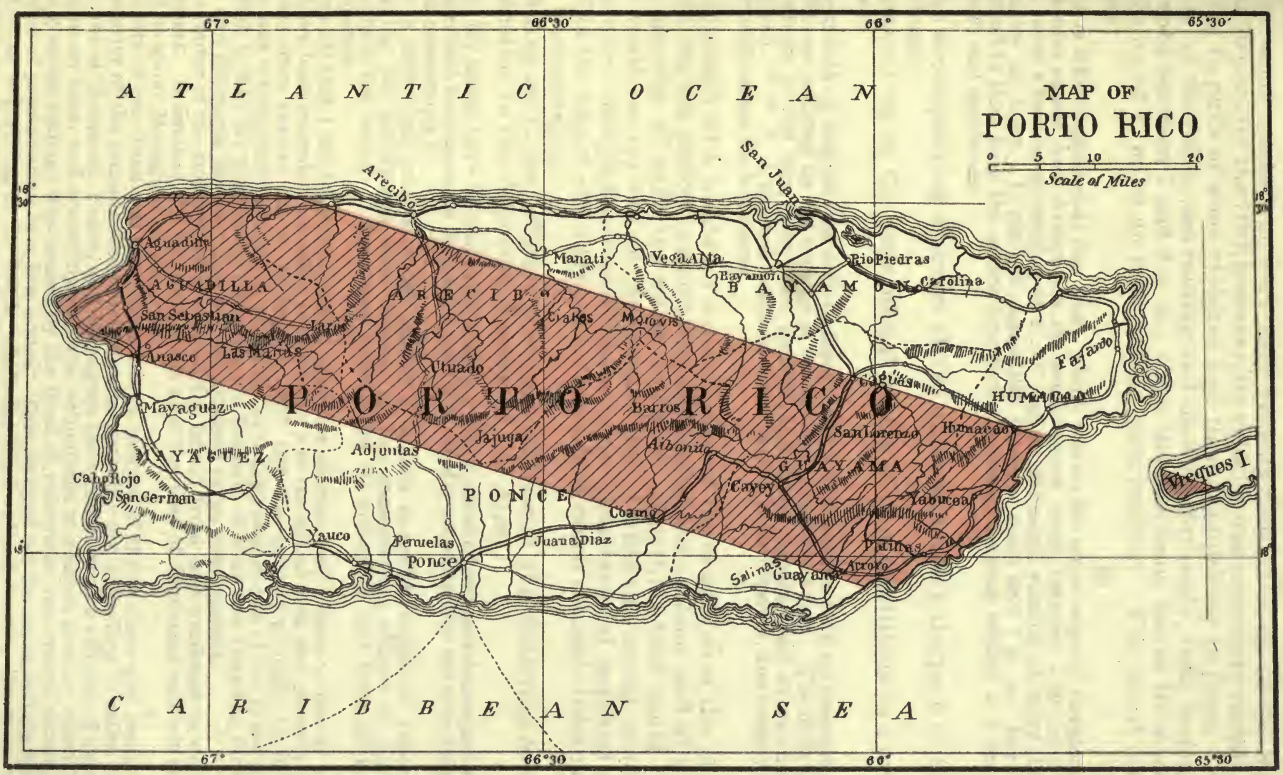
By General Orders, No. 18, series 1899, from these headquarters, the law of foreclosure was prorogued in the interest of equity and to save the agricultural industry from loss and ruin. At the time this order was issued (February 12) its effect was to place the business of the island in a state of suspended animation. The advice of Polonius, "Neither a borrower nor a lender be," was perforce literally followed, and perhaps no great harm would have resulted had the maturing crop been harvested. Unfortunately this was not to be, and the beneficent effort to protect the few weaklings has resulted in incalculable harm to the entire population, for not a dollar can be borrowed on realty security, and there is no other collateral.

The people were without available resources and without the means of getting any, food was destroyed, business paralyzed, realty deprived of its borrowing power, and the government without authority to negotiate a loan. What was then left to be done but to appeal to the charitable for help?

THE HURRICANE.

What happened in Porto Rico on the 8th of August, 1899, is known to all the world. The official weather report says: "Premonitions were not wanting." As far back as the 3d of the month the meteorological conditions had been peculiar. On that day calm was reported at both morning and evening observations. Between midnight of the 3d and 8 a. m. of the 4th there was recorded but 3 miles of wind, and from 6.30 p. m. of the 3d until 6.30 a.m. of the 4th but 4 miles. This unusual condition was spoken of at the time, but the next few days presented nothing unusual until the morning observations of the 7th, when indications became more marked. The barometer read, however, but 29.96″. About noon of this date the sky assumed an extremely hazy appearance, and cumulostratus clouds were observed moving rapidly from the northeast. Every appearance pointed to a hurricane, and it excited no surprise when signals were ordered for the island, the center having been located east of Dominica. At this time the barometer read 29.91″; wind 12 miles, from the northeast. The mercury continued to drop rapidly until 3 p. m., when it read 29.86″. The sky began to be covered with thick alto-stratus and stratus clouds, the former moving from the southeast, the latter from the northeast. From that time on the sky became more and more overcast, the barometer fluctuating between 29.78″ and 29.80″.

About 5.25 p. m. light rain began, which lasted until 8.15 p. m., to be resumed later during the night. At 10 p. m. the barometer began the downward course, which continued without intermission until the lowest reading was reached, 29.23″ at 8.30 a. m. of the 8th. At this


MAP OF
PORTO RICO
Scale of Miles
0 5 10 20
ATLANTIC OCEAN
CARIBBEAN SEA
PORTO RICO
67°
66°30'
66°
65°30'
Arecibo
San Juan
Aguadilla
AGUADILLA
ARECIBO
Manati
Vega Alta
Bayamon
BAYAMON
Rio Piedras
Carolina
San Sebastian
Lares
Quebradillas
Camuy
Morovis
Aguadilla
Las Marias
Utuado
Barros
Fajardo
Luquillo
HUMACAO
Mayaguez
Jajuca
Adjuntas
Aibonito
GUAYAMA
San Lorenzo
Humacao
MAYAGUEZ
Cabo Rojo
San German
PONCE
Cayey
Yabucoa
Vieques I
Coamo
Yauco
Peruelas
Juana Diaz
Ponce
Patillas
Salinas
Guayama
Arroyo

PUERTO RICO
LOIZO RICO

time the mercury in the tube was "pumping" violently. It soon began its upward movement, which was rapid, 29.58″ being reached by noon.

The wind reached no very high velocity until 2 a. m. of the 8th. From 10 p. m. (of the 7th), however, its velocity was extremely variable, coming in puffs of some violence and then diminishing in force. At 5 a. m. of the 8th it was raining and blowing furiously, both increasing until between 7 and 9 a. m., when the hurricane was at its worst, a velocity of 85 miles an hour having been reached. The report continues:

This is what happened at San Juan, which was on the upper edge of the storm. The center passed over Arroyo, on the southeastern coast, between 7.30 and 8.30 a. m., with a barometer reading of 27.90″ and an estimated velocity of more than 100 miles an hour. It reached Aguadilla between noon and 1 p. m., having traversed in that time the entire length of the island, leaving behind it a track of death and desolation.

The accompanying diagram shows quite accurately the path of the hurricane.

Summed up in the terse official report of crop conditions in Porto Rico—

The month of August was very unfavorable for agriculture, both on account of the damage inflicted by the cyclone of the 8th and insufficient rain. The destructive effects of the hurricane were general, and fruta minora were everywhere destroyed. * * * A marked deficit in the next crop is anticipated, due largely to the drought since the hurricane.

I approach with hesitancy a description of the condition of the people during the period immediately succeeding the cyclone, and of the long months of suffering which followed. Anything that could be said would convey but an inadequate idea of what the actual conditions were, though fortunately there is an abundance of material at hand in the way of official reports, from which much valuable information is obtainable.

On August 17 the military governor addressed the following communication to the Adjutant-General of the Army:

SIR: My cables have been so full respecting the physical effects and consequences of the recent hurricane on August 8 that it is hardly necessary for me to write at length concerning it.

For a more full exhibit of the matter I submit herewith copies of reports respecting the occurrence from several of the commanding officers of posts throughout the island. I have now heard from all indirectly, and from all but one directly.

From all that I can learn concerning previous storms, and I have a list of all that have been recorded, no other in the history of the island had the severity of this one since that of the 2d of August, 1837, but the damage wrought by that storm was insignificant compared with this for many reasons, one of the principal of which is that the population then was not the half of that now found in Porto Rico, and the sugar industry had not yet attained large development.

The center of the storm track traversed the island from east-southeast to west-northwest. It reached the southern coast near the post of Humacao and left the island at about Mayaguez on the west.

The city of San Juan was near the northern margin of the cyclone and escaped the severity of the tornado, the wind velocity probably not exceeding 70 miles an hour, but at Humacao, Ponce, and Mayaguez the wind blew at a velocity of quite 100 miles an hour, and according to some estimations at a much greater velocity.

The greatest damage was caused by the flood of rainwater, one record showing 12 inches of precipitation in a few hours. This deluged all the main valleys and swept away everything in its track, while the wind sufficed to strip the trees of all semblance of foliage, to shake off nearly all the coffee berries, and to smash down all fruit trees and plants.

The appearance of the surface of the country now very closely resembles a northern region that has been swept by fire, for everything is brown and lifeless.

The quick response of the Department to my calls for assistance and the alacrity with which the charitable people of the States responded to the necessities of the unfortunate will save thousands of lives and make less difficult the recovery of the inhabitants than would otherwise have been the case, but no matter how much be given there is certain to be great and prolonged suffering.

There is not a road in the island, either steam or wagon, that has not been wrecked, and almost everything sent into the interior must be packed over the most difficult of improvised trails.

I have issued supplies from available army rations, and with the insular funds have purchased stock from local merchants, and so have relieved and am relieving the pressing needs that can be reached.

Concerning the ultimate industrial effects of the storm, I shall submit a further communication.

Very respectfully,

GEO. W. DAVIS,
Brigadier-General, Commanding.

At the time of the hurricane there were 12 military posts in Porto Rico, located at strategic points and quite generally covering the island. On August 11 the following order organizing the service of information and relief was issued:

GENERAL ORDERS, No. 115. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 11, 1899.*

For the purpose of ascertaining the exact conditions resulting from the recent hurricane obtaining in the various municipal districts, the island is divided into 12 inspection divisions, corresponding to the 12 military posts, each embracing the following-named municipalities:

I. SAN JUAN.

1. Bayamon.
2. Trujillo Alto.
3. Loiza.
4. Luquillo.
5. Rio Piedras.
6. Carolina.
7. Rio Grande.
8. Fajardo.

II. HUMACAO.

1. Patillas.
2. Naguabo.
3. Juncos.
4. Maunabo.
5. Ceiba.
6. Piedras.
7. Yabucoa.
8. Arroyo.

III. CAYEY.

1. Salinas.
2. San Lorenzo.
3. Caguas.
4. Guayama.
5. Gurabo.

IV. AIBONITO.

1. Sabana del Palmar.
2. Aguas Buenas.
3. Cidra.

V. PONCE.

1. Juana Diaz.
2. Coamo.
3. Barros.
4. Barranquitas.
5. Santa Isabel.

VI. SAN GERMAN.

1. Cabo Rojo.
2. Sabana Grande.
3. Lajas.

VII. MAYAGUEZ.

1. Maricao.
2. Hormigueros.
3. Añasco.
4. Las Marias.

VIII. AGUADILLA.

1. Isabela.
2. Mocha.
3. Rincon.
4. San Sebastian.
5. Aguada.

RIO PIEDRAS.

IX. ARECIBO.

1. Hatillo.
2. Quebradillas.
3. Camuy.
4. Barceloneta.

X. MANATI.

1. Vega Baja.
2. Toa Baja.
3. Dorado.
4. Corozal.
5. Ciales.
6. Vega Alta.
7. Toa Alta.
8. Naranjito.
9. Morovis.

XI. LARES.

1. Utuado.

XII. ADJUNTAS.

1. Yauco.
2. Peñuelas.
3. Guayanilla.

Post commanders are appointed inspectors of the respective divisions, and will at once send out an officer, noncommissioned officer, or intelligent private into each municipality to ascertain the extent of damage to houses and crops, the number of injured and sick and the number of destitute, the probable amount of food in the district and the points which demand immediate attention. These reports will be sent to these headquarters at the earliest practicable moment. It will also be the duty of the inspectors to supervise the distribution of such funds and material as may be sent for distribution to the poor by the board of charities, or other sources.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

Accompanying this order a letter of instruction and funds were sent out to the various post commanders, as suggested in the following:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, August 11, 1899.

ADJUTANT-GENERAL DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: In order to meet the immediate necessities I have the honor to recommend that $1,000 be sent to each post commander for use in his inspection district.

Very respectfully,

JOHN VAN R. HOFF,
Major, Surgeon U. S. A., President Board of Charities, Porto Rico.

As was to be expected, most of the post commanders anticipated the request for information, as shown by the following reports:

POST OF LARES, P. R., *August 9, 1900.*

ADJUTANT-GENERAL DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report that a severe hurricane visited this section on the 8th instant; no injury to any of the troops, and but few injuries among the civilians of the town. Much material damage, however, was done to buildings and crops.

Of the buildings used by troops the hospital was nearly all unroofed; the telegraph office and post-office adjacent completely so; commissary and quartermaster's storehouse and barracks were partly unroofed; headquarters office and officers' quarters were damaged as to front porch and roof by débris hurled against it from the house opposite, which was completely unroofed. Stable shed at corral was also unroofed.

With good weather this damage to buildings can all be repaired in a few days; work now in progress. Commissary and other stores were somewhat damaged by water; extent not yet known.

Every building in town was damaged more or less. The coffee crop appears to be nearly ruined, being beaten down to the ground and the berries thrashed off. The country is strewn with broken trees, and much fruit and vegetables have been destroyed.

The native huts were laid flat or made untenable, and the occupants sought shelter in stores and warehouses.

The storm lasted from midnight of the 7th until sunrise of the 9th instant. The

rainfall was tremendous even for this country, being continuous and heavy during the whole storm.

The telegraph lines went down during the night of the 7th. Repair parties will start toward both Utuado and Aguadilla to-morrow. No mail was received or sent yesterday.

Very respectfully,

HARRY R. LEE,
Captain, Eleventh Infantry, Commanding.

POST OF AIBONITO, P. R., *August 9, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, Porto Rico.

SIR: The storm is apparently at an end. It rained all night. All Government property totally destroyed. The town is almost a total wreck; not a house but what was considerably damaged or totally destroyed. The distress of the natives is simply appalling. We must have aid as speedily as possible; I am issuing my troop rations. Will send wagons to Ponce as speedily as possible, probably not before to-morrow. Whatever I may do in aiding the distressed people, I hope will meet with the approval of the department commander. The natives are without food, money, or shelter.

Respectfully,

H. W. WHEELER,
Captain, Fifth Cavalry, Commanding Post.

POST OF HUMACAO, P. R., *August 10, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO.

SIR: I have the honor to report as follows on conditions in this district. The worst reports are from Yabucao. Ninety are dead and buried this morning. A large number are missing and a great number are wounded. There is a great scarcity of food and medical supplies. We have sent a doctor and some medicines, but no food. Yabucao contains about 2,500 inhabitants, and is nearly destroyed. The walls of the church only are standing. From Vieques no very serious reports are received. Las Piedras no loss of life, but village is destroyed, except one house. The post of Humacao is destroyed and about 30 drowned and killed. Post of Naguabo destroyed, and no deaths; Naguabo loss not great. Humacao 30 odd deaths, and other conditions the same. In northern part of district loss seems to be less than here. I have no reports from portions south of Yabucao. Norman H. North, a teamster in the qartermaster's department, formerly of Troop C, Fifth Cavalry, was drowned. His home is at Snow Hill, Md. I will have one lighter ready to receive freight from a steamer to-morrow, but not more than two wagons. Considerable work has been done on the road to Playa, and if we had wagons we could probably haul freight after to-morrow. The disaster to the fruit and crops seems to be very great. Notwithstanding the desperate condition of the people, it is hard to get work done. I had to force men to work on the road to-day, under guard, but with a promise of food and pay. A guard had to be sent with men working on the telegraph line also.

The chief of police gathered up laborers to work on the bakeries which are absolutely necessary at this time. I see nothing of the insular police. If they were under my orders I could use them and save my own men considerable work which may now be necessary. I have had requests to send troops to places where I know there ought to be sufficient insular police.

Respectfully, your obedient servant,

EBEN SWIFT,
Captain, Fifth Cavalry, Commanding.

CAYEY, P. R., *August 10, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO.

SIR: The more full the reports of the hurricane become the more serious the situation appears. There are reported dead in the town and vicinity from 25 to 50. The first estimate is almost entirely too low, and even the second may be exceeded. Everything has been destroyed, even the bananas on which these people rely as a

PLAZA, CAYEY.

last resource. They are now eating the green ones broken off by the storm, but they will only last a few days, and then the people will actually starve if something is not done to help them. The town is now full of homeless people begging food. The alcalde is doing all he can; he distributed a quantity of food to-day and will continue to do what he can to alleviate the horrors of famine which will surely ensue here if help does not come from abroad and quickly. From all reports that I can gather it would seem that three months is as soon as a new supply of food can possibly be grown here. If work could be provided of course it would be better, but where work is to come from with all the coffee plantations destroyed I can not see. I have employed all the men that could possibly work in cleaning away the débris of the barracks and hospital, but in addition have been overrun with applications for work and aid. Individual efforts do but little. If the intention is to rebuild here it should be started at once by giving employment to a hundred or two of laborers here. Ten times that many could be supported and charity would only be required for the women and children and the sick. I have the stable roofed again, and my men quartered in it as well as part of the horses. To-morrow we will put up the tents and arrange the men more comfortably. Thanks to the work we did in graveling around the barracks we have a model site for a camp, and I have material enough sent here for the construction of a new stable, to frame the floor of the tents, and hope in a few days to have my men comfortably in camp. When they are safely fixed up, I request that I be given authority to visit San Juan, to make personal report and confer with the chief quartermaster as to what is to be done at this post.

From my detachment in Guayama I hear that the town is partially destroyed as well as the seaport of Arroyo, a few miles distant.

The alcalde is a very active, energetic man, and is untiring in his efforts to relieve the distress, and I believe he can be counted on to faithfully assist in any effort at relief. The priest refused to allow the poor people to be sheltered in the church, and it took considerable diplomacy to make him change his mind. He finally did so, however, when I agreed to allow a sentinel to be placed in the church to see that no profanation took place. Incidentally I took great pleasure in telling him I would report just how he was conducting himself, etc. At last he was persuaded (?) to consent, but has done nothing else whatever to help the people either by sympathy or material aid.

It has been a fine day, and a number of roofs have been replaced, and the greater part of the town people will probably by a little crowding sleep under some sort of a roof.

I have lost three horses, so badly injured that they had to be shot, and three others are still unaccounted for. The rest have been gathered in, but in very bad shape; many of them being cut and bruised so as to be for the present unserviceable.

Reports up to this time give the total deaths as 34 yesterday and to-day. I hope that is all.

Very respectfully,

F. W. FOSTER,
Captain, Fifth Cavalry, Commanding.

MANNTI, P. R., *August 11, 1900.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report that on the 8th instant, at 8 o'clock a. m., a severe storm, in the nature of a tornado, struck this post and the entire district. At the commencement of the storm the wind was from the north, slowly veering to the southeast about 11 o'clock a. m., when the wind abated. Heavy rainfall from the commencement of the storm until about 8 o'clock p. m., from when until about 11 p. m., it rained in torrents. A great deal of damage was done in the town of Manati, principally unroofing buildings and destroying the poorer quality of houses. No lives were lost and only one injury reported. The roof of the quartermaster's store room was blown off, also roof of stables partially destroyed; no other damage to Government property except by water.

At Morovis the town was almost totally destroyed by wind. The church was blown down and nearly every house blown down or unroofed. Quarters occupied by the detachment unroofed and stables destroyed. No deaths so far reported from that district, but a number of persons reported more or less injured; one horse, Troop K, Fifth Cavalry, so badly injured as to necessitate its being shot. Rations and forage totally destroyed.

At Ciales considerable damage done by wind, principally to poorer quality of homes. Quarters occupied by detachment had roof blown off; stables totally destroyed, also forage and rations. Twenty-one deaths reported, but only three authenicated so far.

At Barceloneta poorer quality of houses destroyed, greatest damage being done by overflow of river, which was about three feet deep, leaving the town now flooded with drift. Railroad depot totally destoyed. Eight deaths so far reported, seven of which have been authenticated; two in the vicinity of Barceloneta and five, all belonging to one family, near Florida.

The coffee crop in all the districts is almost totally destroyed, not only the crop for this year, but the trees are torn up by the wind.

The sugar cane has been flooded and is now covered with mud and drift. Oranges, bananas, plantains, and nearly every kind of vegetable are almost all totally destroyed by water. Mr. Carleaf, the sugar planter, claims to have lost $150,000 by the storm, others from $20,000 to $50,000. Sugar factories are badly wrecked, and nearly all of the sugar on hand destroyed by water.

The whole district is in a state of absolute destitution; the planters have no crop in prospect, nor have they any ready means, so can not give any support to the poor or laboring classes. I recommend, if possible, that work be given to this class on the roads, which are almost impassable, as the only means of preventing great suffering.

The telegraph line between this post and Ciales is completely wrecked. The railroad telegraph line is badly damaged from Barceloneta to Vega Baja; about one-half the poles will have to be reset and wire furnished before line can be repaired. The railroad depot and warehouse here are unroofed, and both here and at Barceloneta abandoned by the railroad company. Between here and Vega Baja track is in fair condition, only ballasting required in a few places. Between here and Barceloneta railroad bridge and three culvert bridges washed off foundations; track for about half a mile washed away; remainder of track, ballasting washed out in a great many places.

Consolidated report of damage done by the storm in the different municipalities will be forwarded as soon as received.

There is now twenty days' forage of grain and hay at this post, and thirty days' rations.

Very respectfully,

H. S. BISHOP,
Captain Fifth Cavalry, Commanding.

POST OF PONCE, P. R., *August 12, 1900.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to submit the following report of damages and consequences of the recent storm here in addition to report submitted on the 9th instant:

In the post as much work as possible has been done. Temporary roofs have been constructed over most of the five sets of officers' quarters to the north of Cuertel to protect the walls and afford shelter for officers' goods and officers' families living in these which are still habitable. The three sets of quarters to the south of Cuartel remain practically as left by the flood. As previously reported, these are uninhabitable, and their abandonment and removal as soon as practicable will probably be advisable.

The repair of the cavalry stables has been commenced and is proceeding as rapidly as possible. Under the direction of the quartermaster, the road to La Playa has been cleared sufficiently for the passage of wagons. Some of the iron from the roof of the wrecked subsistence storehouse has been hauled to the post and used for temporary roofs over officers' quarters, etc.

Communication with La Playa has been had since the 10th instant, first, by means of cable and boats, and later, when the river had fallen sufficiently, by ford across river. The damage to the depot commissary storehouse at La Playa is more than was stated in first report. The building is wrecked beyond repair; the roof fallen and mostly gone. The stores there are damaged and lost to a great extent, both by fresh and salt water; and while every effort is now being made to save those left, further deterioration and loss will, of course, follow to nearly all that are not issued and used immediately. A considerable amount of stores will have to be destroyed at once to prevent danger of disease.

A considerable amount of wood, coal, and forage at La Playa has been lost, but to what amount is still unknown.

The refrigerating plant of Swift & Co. has been repaired so that they are now

THE PLAYA, PONCE.

ready to store beef again. Sufficient water for the use of the plant can be hauled daily in barrels.

Other damages at La Playa not reported before are the wrecking of two sheds of the customs department, the unroofing of the third, leaving the frame standing, and slight damage only to the other shed.

In and about the city the loss of life is far greater and the damage fully as great as indicated in former report. Up to last night 117 bodies found in Ponce and the neighboring country have been buried in city cemetery here. A good many missing have not been found, and are supposed to be buried under piles of drift or carried to sea. The search is still going on.

The work on the aqueduct has proceeded, so that a little water came through the mains last night. Several weeks will probably be required for its completion.

About 500 men are employed in cleaning up the streets and good progress is being made. All serviceable wagons of the Quartermaster's Department that can be spared are being used to assist in this work.

Slight friction has arisen between the alcalde and the council and a few of the indigent and poorer classes. The alcalde and council are accused of negligence in failing to warn people of the approaching hurricane. On the afternoon of the 9th several hundred indigent natives, probaby incited by a few evil-minded persons, unknown, gathered in front of the municipal building and demanded the abdication of the alcalde, accompanied by a few threats against him. This crowd was easily dispersed by the presence of the commanding officer and a small part of the troops here, without the use of any further display of force.

At a meeting of the city council, which followed the same evening, the alcalde and some of the council attempted to resign. The commanding officer took advantage of this occasion to protest against the introduction of politics in a question already serious enough and entirely foreign to matters political, and also against any change in the city government or the resignation of any official at this time. The alcalde has, however, virtually turned the city government over to the sub-alcalde, and it has been deemed necessary for the commanding officer to assume a general supervision only over the matters connected with the city. And at present the removal of any official or any change in the city government is not recommended until at least the question of alleviation of the suffering and improvement of existing conditions here is to some extent settled.

It is respectfully requested that this action and recommendation be approved and sustained.

Every effort is being made to preserve the best order throughout the city, as well as to assist the hungry and homeless.

The city has been covered with mounted patrols every night and the city hall and jail, as well as government property, protected at all times by guards. So far there has hardly been the slightest evidence of disorder other than described above, and there is no doubt but that the feeling at present among the poor people is strongly in favor of the Americans.

Reports have been received from detachment at Coamo. The roof of the building occupied as barracks is gone. One quartermaster's mule killed, another seriously injured, and a part of rations damaged. Other damages slight, but private property throughout town damaged to a considerable extent. Twelve days' rations have been sent them by pack trains.

Two thousand rations have been sent to commanding officer of Aibonito in response to his request. No further rations could be spared at that time until the extent of damage here was determined and whether further supplies for this garrison could be obtained at San Juan. Four thousand pounds of hard bread, somewhat damaged, was also sent for issue to starving natives.

Very respectfully,

ALBERT L. MYER.
Major, Eleventh Infantry, Commanding Post.

AGUADILLA, P. R., *August 12, 1900.*

The ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: In reference to the storm which passed over this place on the 8th instant, I have the honor to submit the following report:

The storm struck this city between 10 and 11 a. m., coming from almost due north and lasting until about 9 p. m. Between 1 and 2 p. m. the wind greatly abated, and this lull lasted for more than an hour, when the storm returned from the southeast, and, as I say, lasted until about 9 p. m. The damage here was

slight. Only a very few of the poorest houses were blown completely down, but the roof of nearly every house in the town was more or less damaged; some being entirely blown off. All of these roofs were either of zinc or, as in the poorer houses, of palm leaves, and are easily replaced. Most of them have already been replaced, and in a week's time the effects of the storm, as far as the houses are concerned, will hardly be noticed. It is impossible to say at present what is the actual money value of the property destroyed, but it is so slight as to be inconsiderable. The only cost for repairing the roofs will be for the labor for replacing the zinc, as most of the zinc blown off was uninjured and was picked up. As for the palm leaf roofs, they cost nothing to put them up in the first place, and will cost nothing to replace them. At present there is no suffering here at all—no more than before the storm—but it is reported to me that all the coffee and sugar and other crops have been destroyed in the surrounding country, and if this prove true, actual want will come later on. I have only heard from two of the neighboring towns, Moca and Rincon, and their alcaldes claim that great damage was done in both places, and that there is great suffering among the people. I have not visited these places as yet, but am inclined to think that these reports are greatly exaggerated. The alcaldes of the other towns have been called upon to report, but have not yet heard from them. Unless the destruction in the surrounding country is much worse than in this town, there will be no necessity for but little if any disbursements at the present time. I think it will be necessary later on, when the food gets scarce and the crops fail to materialize. There were no lives lost or serious injury that I have heard of. The zinc roof on the barracks occupied by the native detachment when they were here was partly blown off, but it was replaced by the men themselves in a couple of days, and is now as good or better than before the storm. No Government property was destroyed or injured to speak of. Business and everything else here is going on as if the storm had never happened. The only drawback is a lack of communication. There are no trains running between here and Mayaguez. I have heard that the bridge at Anasco is down, and all the telegraph wires are down. As soon as the other towns in this district are heard from, their reports will be forwarded. Take it "all in all," and from what we can hear from other places, this immediate district came off very light indeed.

Very respectfully,

SEABORN G. CHILES,
First Lieutenant, Eleventh Infantry, Commanding Post.

POST OF MAYAGUEZ, P. R., *August 12, 1900.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to submit the following report of the results of the hurricane which visited the island on the 8th instant.

The storm lasted in Mayaguez from about 9.30 a. m. until about 10 o'clock p. m., the wind approaching at times a hundred or more miles per hour, as well as could be judged without the assistance of anemometers.

One of the new stables lately completed, and another almost ready for occupancy, were wrecked, the first not so badly but that it can be repaired; but the second will have to be entirely rebuilt, nothing but the stalls and a part of the galvanized roofing remaining for future use. The old car stable, which has been rented for public use since the arrival of the troops at this place, was so badly damaged that it is unsafe for sheltering horses. Unless the owners of the property will consent to make certain changes which have been suggested, the stable will have to be given up and a new one provided.

The barrack building, as might have been expected, suffered little damage, being too strong a structure to be injured very much by anything less than a violent shock of earthquake. Some portions of the galvanized roofing of the outer buildings were blown off and carried away, but the walls have suffered so little damage that they can be repaired at a slight expenditure of money and labor.

The hospital, although none of the exterior walls were blown down, was so badly wrecked that it is unsafe to occupy. One of the partition walls fell down, but fortunately injured none of the occupants of the room. All the piazzas, with their roofs, in the court of the hospital were converted into a heap of broken lumber and rubbish. An examination of the hospital walls shows that they are made of the thickness of one brick only, laid on top of one another, without binding from top to bottom, which fully accounts for the weakness. In my opinion, a new hospital

ST. CHARLES STREET, AGUADILLA.

will have to be built, as the present one, or the remains of it, are hardly worth repairing. The patients, of which there were 30, and the members of the Hospital Corps were made very comfortable in a new furnished room in the barracks.

Yesterday I was fortunate enough to hear of a large building in the city, in an excellent location, which had just been newly floored, painted, calcimined, etc., and after it had been examined by the post surgeon and approved by him I ordered it to be hired at a rental of $72 per month. The sick will all be comfortably provided for in it by to-morrow.

Beyond the damage done by water entering through the holes in the roof, which is slight, the public property in buildings in the city was uninjured.

At the subpost of San German very little damage was done to public buildings or property.

In the city of Mayaguez a great many houses are deprived of their coverings when these consisted of galvanized iron.

Not a solidly built structure of any kind was blown down, but many houses occupied by poor people, especially along the seashore, were wrecked, some of them having been carried out to sea. Many brick walls inclosing private grounds were thrown down, which is not surprising, as the walls were old and made of only the thickness of one brick and not bonded.

Of the shipping in the harbor the steamer *Vasco* was run on shore to save her, and will undoubtedly be saved; the schooner *Concepcion*, having on board about 150 emigrants bound for Santo Domingo, was totally wrecked, every one on board, with the exception of one woman and her child, having been rescued. One other schooner was driven on shore, but will probably be saved. Not a life, except those of the woman and child named, has been lost in Mayaguez by the storm. Quite a number of people were injured by flying roofing and other débris, but none, so far as known, mortally.

Of course nearly all the electric and telephone wires and poles were thrown down and badly displaced. The electric plant will be in operation again very soon, and the telephone service will be resumed very soon. Although the streets have been lighted by only a few oil lamps since the night of the 7th instant, there have been no disturbances of the public peace worthy of mention. On the morning of the 9th instant the Mayaguez River overflowed its bank in the lower part of its course and flooded quite a large part of the business district, but soon receded again without doing a very great amount of injury to property.

Since the 8th instant all communication by telegraph or railway with the outside world has been completely cut off. The steel railway bridge crossing the Anasco River was torn from its piers and carried downstream several hundred yards. To replace it will probably be the work of several weeks. Meantime all traffic coming or going by rail will have to be ferried over the river. I have attempted to establish telegraphic communication north and south, but the wires, poles, etc., were so completely destroyed, for miles in places, that the necessary material can not be found to replace that destroyed. The line may be reestablished to San German and east of that place, if the necessary wire and poles can be obtained; but the line to Las Marias, Maricao, Anasco, and other places in this district all tell about the same story. Two-thirds of the coffee crop has been destroyed; the bananas, small fruits, and vegetables are almost a total loss. As the coffee crop is the main reliance for paying past debts and making future improvements, the business interests will be terribly affected. The laboring people, depending as they do so largely upon the bananas for food, will be soon in a condition of misery almost impossible to realize. Enormous areas of growing sugar cane have been flooded and almost buried by the overflowing streams or mountain torrents. As the owners of the sugar estates are generally men of wealth, they will not suffer so much, but it will take them some time to recover from the results of the destruction of their fields and large sugar mills.

At Las Marias the barracks occupied by the troops were almost entirely unroofed. The stable was completely destroyed. The detachment will probably be able to recover or replace enough of the roofing to give good shelter.

At Maricao little damage was done by the wind, but the river overflowed the banks and ran through the buildings occupied by the troops, and also their stable, and did a great deal of damage in the town and its vicinity.

In the hamlet of La Vega there was quite a loss of life, the total number of deaths amounting to thirty or forty. Some of the people were among the best known in this part of the country. Many of them while in their houses were washed down the hillside and carried away by the torrent, their bodies having been found miles away from their late homes. From the very best official information I have been able to obtain nearly 100 persons have lost their lives in or

about La Vega, Las Marias, Maricao, and Aldea Saenz. Corrected returns will more likely increase than diminish the number of deaths already reported.

I inclose herewith a copy of a report received to-day from Captain Schuyler, Fifth Cavalry, commanding San German, which gives much reliable information in regard to matters of general interest in and about San German.

The steamer *Longfellow* arrived here at 2 o'clock p. m. to-day. Your letter of August 11, 1899, to the commanding officers of Mayaguez and San German, respectively, authorizing each to disburse $1,000 to the needy poor, were promptly delivered by the captain of the boat. The relief which will be given by this money will be greatly felt and highly appreciated, as I have already said. It is almost impossible to realize the misery and suffering to which the poor of the island will be subjected by the results of the late disastrous hurricane. It may be added that the financial condition of Mayaguez and the other towns in this district is such that it will be utterly impossible, with the best intentions in the world, for the municipalities to afford one-tenth part of the relief that will be demanded to prevent an almost incalculable amount of suffering and death from starvation. In my opinion, only an appeal to the sympathies of the charitably disposed people of the United States for aid in the way of food will save the island from the horrors of famine and possibly pestilence resulting from it.

To Dr. Groff, the secretary of the superior board of health of Porto Rico, whom I met on the dock on the arrival of the *Longfellow* to-day, I gave such information in regard to the number of people who would have to be fed, etc., as it was possible to supply offhand, which he will be able to put into your hands much earlier than I could.

This letter will be sent by courier to San Juan, in the hope that it may reach the destination within four or five days; but whether it will or not remains to be seen. So far I have been able to hear of no route which can be traveled without the possibility of the courier having to cut his way through the fallen timber, as did a detachment sent to Las Marias two days ago, the lately repaired wagon road being utterly impassable and the detachment being obliged to go by mountain trail.

Very respectfully,

C. C. C. CARR,
Lieutenant-Colonel Fifth Cavalry, Commanding Mayaguez.

[Inclosure.]

Yesterday I went to Sabana Grande, and to-day to Lajas and as far as Sur Vivonas plantation, in the savanna beyond. At Sabana Grande I had a long talk with a group of headmen and planters. They estimate that the loss of coffee will be from 50 to 65 per cent, owing chiefly to the throwing down of the large trees. From what I saw to-day in the hills south of here I can well believe it. The chief loss to the sugar planters will be in the destruction of their buildings. There will be great destitution among the peons everywhere, as the bananas and small fruits and vegetables are almost totally destroyed. The towns of Sabana Grande and Lajas are not much injured, though in all buildings there has been damage by leakage and exposure. The worst thing for us seems to be isolation, owing to almost total destruction of lines of communication. I am trying to set up the telegraph lines both ways, but we lack proper implements, wire, and insulators. Wherever the lines crossed a river there is a long break and the wire totally carried away. I have sent a party to Yauco to try to get wire, etc., and work back from there.

It is reported that the railway from Yauco to Ponce is completely destroyed and the bridges gone.

I shall probably send a couple of men through to Ponce to-morrow to report upon it and establish communication with San Juan. We get nothing definite from that direction, only a general rumor of calamity. When the railway was built the Government ordered that the wagon roads competing with it be neglected, so now there is no road from Yauco to Ponce upon which freight can be carried. The wagon roads about here have been badly washed, but in many places the remains show a good foundation and show that the work done this year has been better than I supposed. I have an engagement to go on Monday with the municipal authorities in the direction of Maricao to see the condition of the coffee plantations. It is said the road is fearful, but I fancy we can pick our way over it. Meanwhile we repaired our damages and are calmly going on with our target practice and other work. We have had no rain since Wednesday morning, and the barometer indicates dry weather.

Very sincerely, yours,

W. S. SCHUYLER.

ADJUNTAS, P. R., *August 13, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: Since my report to you on the 10th instant I have received additional reports from Utuado and surrounding country. The loss of life has been terrible and the destruction of property great, both by wind and water. All the rivers have overflowed their banks to an extent heretofore unknown. The town of Jayuya, 1,500 inhabitants, west of Utuado, was destroyed by the river. The loss of life in the town and neighborhood is set down at from 250 to 500 persons (latter doubtless exaggerated). The entire town, excepting 11 houses, was swept away.

At Utuado the destruction of life in the town was about 15, but the number lost in the surrounding country goes into the hundreds—in one house near the town 11 persons were killed. The iron bridge at entrance of town is swept away, the cemetery partly destroyed by water, and the jail blown down and prisoners liberated. I can not communicate with Utuado except by messenger afoot. The roads and trails are utterly impassable for horses. I inclose report from the sergeant commanding the detachment at Utuado.

I think any assistance for Utuado will be better sent from Arecibo, although do not know the state of the road beyond Utuado.

I think by the 16th instant the road from here to Ponce will be open for pack mules. I have revised the opinion as to the repair of the wagon road. I do not think the work of repair will be so great as I at first anticipated. The greater part is good and repairs are needed only in places. With necessary authority I think I could put it in passable order in a few weeks.

In my last report I suggested sending part of the troops to Ponce on account of scarcity of forage for the horses. I presume, however, I can get on as well here as in Ponce. With some assistance from the quartermaster's department in the way of aparejos, etc., we can manage to pack sufficient rations and grain for men and horses. I think the troop is and will be necessary here.

If the department commander will let me go to work on the wagon road, I would like to get at it as soon as possible.

Very respectfully,

C. H. WATTS,
Captain, Fifth Cavalry, Commanding.

ARECIBO, P. R., *August 14, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report as follows on the condition of the districts of Arecibo, Hatillo, Camuy, Quebradillas, and Isabela, said report being made from a personal examination concluded by me yesterday:

GENERAL CONDITIONS.

The recent war, followed by a change in government and a reduction in prices abroad for island products, a loss of certain markets with no compensating gain, had naturally resulted in a lack of confidence in the pursuit of agricultural labors. The proprietors in the past year, therefore, planted much less than usual and sold less than usual. The confidence of this class was also impaired by the semipolitical attacks upon the Spanish proprietors in September and October last, when many houses were burned and fields robbed of their crops and cattle stolen.

Taxes, often from lack of means, have not been regularly paid, so that at present the treasuries of the various districts are without any means.

The peon class has received much less than its usual amount of labor, and has for some time been living on short rations, made up, generally, of the fruits that grow abundantly in the island, such as the mango, the cocoanut, the plantain, the aguacote, together with rice, corn, and beans.

The impoverished condition of the natives led to the employment by the insular government of multitudes on road work in the early part of the year. This measure afforded temporary relief and tided over the time until the coming of the rains inaugurated agricultural work.

Either from natural improvidence or the miserable wages paid in the island, increased, as such a condition of shiftlessness is by an eternally mild climate, the

laborer here never has any reserve capital other than his small stock of growing food.

The margin of safety against starvation is therefore a narrow one. Any check in the work or food supply precipitates suffering and hunger. For generations this people has been underfed, and, though a distinguished commission has reported in the past year, after a rapid tour of the island, that it was impossible to starve here, there can be no question but that anæmia, so apparent in the wan faces of the peons, is due to lack of nourishing food in the present and in the past. In short, this people frequently suffer from slow starvation.

The entire island has just received a severe shock to all of its industries in the form of the Dominican hurricane that passed over the island from east to west on the 8th of August, 1899.

The proprietors who were struggling along until better prices might be secured for their stored products lost, through the inroads of water and the falling of houses, not only a considerable portion of their goods in store, but many valuable houses and the machinery in them. This is especially true of the sugar planters, who occupied the lowlands subject to overflow.

The coffee crop, in berry, was shaken down and lost; the coffee trees were so much injured as to materially lessen the crop due in 1900. Fruit trees, upon which the poor depended for sustenance, have been broken and destroyed.

Corn and beans, also important food components for the poor, have been destroyed. Batatas (sweet potatoes) have, when planted in low ground subject to overflow, rotted in the earth. The houses of the better class, though generally withstanding the storm, have been shaken and injured. A large percentage of the huts of the poor have been leveled to the ground, and in the low river bottoms have been swept away with all the clothing, cooking utensils, and bedding of the unfortunate occupants.

Many cattle, horses, and pigs, with the smaller animals, have, in the low country, been swept away. Many houses disappeared with their occupants, overwhelmed by the rushing waters.

SPECIAL CONDITION, ARECIBO DISTRICT.

Great and unprecedented flood from the Rio Grande submerged all the lowlands south of town to the mountains some 5 miles away, and, extending east to Barceloneta, some 13 miles, covering some 65 square miles, ruined much of the growing cane, seriously injured many of the great haciendas, and destroyed and swept away small houses and entire families.

The alcalde reports that from 1,000 to 1,200 persons who occupied the low ground along and near the Rio Grande, from its mouth up to and in the gorge leading to Utuado, have disappeared.

The rise in the river was most sudden, surrounding houses in a moment and cutting off all means of escape except by boats, of which only a few were available.

This was on the afternoon of August 8. That evening and night a torrent of rain fell, and on the morning of the 9th many houses in the bottom lands had disappeared. The estimate of 1,000 persons missing I can not credit.

The number of bodies recovered and buried as the flood subsided is to this moment 43, but as the current was sweeping seaward very strong, it is apparent that the number of persons (bodies) recovered can not approach the number of persons drowned. About 200 families, destitute of homes, clothing, and food, are now in the town being cared for. The cane lands in the flooded districts have been much injured by the destruction of the growing cane and the deposit of inferior material on the rich black loam.

Fifty per cent of the small houses or huts through the district are blown down, and in many cases the clothing and other small belongings of the occupants blown away. Fruit trees, such as cocoanut, aguacarte, mango, banana, pineapple, are broken and destroyed; damage, 50 per cent. Many cattle, horses, and pigs drowned and swept away seaward.

In the city itself many of the poorer houses are down and uninhabitable. One bridge across Rio Santiago is down and the other on the road to station much weakened and in need of repair. Large commercial houses in lower part of town are flooded, with much loss of stores of codfish, salt, coffee, tobacco, etc.

The life-saving station is blown down and destroyed. Minor damages to custom-house property easily repaired.

Custom-house boat reported as lost since recovered. The loss of life in the district is believed to be confined to the low ground south of town. It is possible 500 persons, though actually 43 bodies have been recovered.

UNITED STATES CAVALRY POST, ARECIBO.

Estimated loss, in gold.

Houses and crops	$900,000
Number of huts in town	500
Number of huts down in country	1,200
Population of district	32,000
Persons to whom it is necessary to furnish rations daily	4,000

Rations recommended.

	Ounces.
Bacalao (codfish)	8
Arroz (rice)	6½
Chicharos (peas)	4½
Tocino (pork)	2
Asucar (sugar)	4
Sal (salt)	½

The total cost of such a ration in Arecibo is a little less than 10 centavos, or 6 cents American. Owing to the difficulty in supplying food immediately it was deemed best to furnish 1,500 partial rations from the military supplies, consisting of hard bread (which was, through moisture, rapidly becoming unfit for use), bacon, flour, beans, and rice.

The statement of military affairs here is as follows:

Men present for duty	65
Men in confinement	11
Men sick	8
Horses present	78
Horses absent	4
Quartermaster 4-line wagons	10
Teams for same	11
Pack mules	7
Drivers	11
Packers	2
Rations now on hand:	
Garrison, except fresh vegetables	4,500
No hard bread, but 200 rations of canned beef	2,000
Fresh vegetables, supply to end of month.	

Damage to military stores, buildings, etc.

Two cavalry stables blown down, wrecked.

One quartermaster stable partially blown down.

One cavalry horse drowned in flood.

One cavalry horse badly injured; since died.

Seventy-five halters and halter straps lost by horses of Troop A, Fifth Cavalry, after destruction of stables.

Forage house in lower part of town flooded, resulting in loss of 50,000 pounds oats, 50,000 pounds hay.

Seven framed hospital tents used by quartermaster employees blown down, torn, and rendered worthless.

Two hospital tents used by post hospital blown down, torn, worthless.

On hand, one month's forage.

A considerable amount of clothing, belonging to enlisted men, in hands of washwoman, was lost by flooding of lower part of town.

An order was issued to the quartermaster to at once proceed to reerect one quartermaster stable and one cavalry stable from the material on hand, employing native labor, and limiting the expenses of this work to $500. This measure was deemed actually necessary for the proper care and safeguarding of the Government animals.

HATILLO.

General conditions due to storm similar to those in Arecibo, omitting loss from flood.

Cattle and horses dead, 200; many hogs; plantain trees broken, ruined; new trees available in one year. Batata crop damaged, 50 per cent; tobacco in store (though wet), 10 per cent; cane (not much in district), 50 per cent; corn (about 50 per cent in store saved), 50 per cent; beans, 50 per cent; coffee crop lost for this year and much injured, say 75 per cent for 1900. One man wounded—leg broken by falling

tree. Number of houses of poor destroyed, 450. Population, 12,000. Number of people requiring food and some clothing, 1,000.

CAMUY.

General conditions, excepting flood, similar to Arecibo and Hatillo. Small parts, including grain, coffee, and batata crops, seriously injured.

Many small houses in district town, 450; alcalda unroofed, not habitable; one man injured, arm cut, flying tin; one man injured, struck by flying timber. Population, 14,000. Number of persons to whom rations and some clothing must issue, 2,500.

QUEBRADILLAS.

This district, though not a large one nor thickly populated, is on high, generally rocky ground, and is a very poor population. The loss to food crops is especially felt here. Number of small houses and huts down, 500. Population, 2,500. Number of persons in need of rations and some clothing, 2,500. One man injured by falling tree.

ISABELA.

On high, rocky ground; poor population. Houses and huts destroyed, say, 500. Population, 14,000; in town, 1,200. Rations needed for 5,000. No crops; no work. In all these districts the treasuries are without money and the local authorities can afford but little relief.

MEASURES TAKEN.

I have purchased in open market here food supplies at low contract prices, and issued on the emergency relief ration. noted in this communication, as follows:

	Partial U. S. rations.
To Hatillo	2,000
To Camuy	1,000
To Quebradillas	3,000
To Isabela	6,000
To Arecibo	1,500
Total	13,500

I have, so far as possible, seen personally to the issue of these supplies, and seen that each town has formed a committee of responsible and honorable persons who will see that rations are properly issued to deserving individuals. At the present writing there are on hand in this town for consumption the following:

	Pounds.		Pounds.
Codfish	13,000	Sugar	1,000,000
Peas	3,000	Salt	1,000
Rice	530,000	Flour	10,000
Pork	16,000	Beans	3,200

These supplies are not sufficient for any prolonged siege of famine, and must be reenforced promptly by sea. No more rations of the Government will be issued. The necessity for more salt is especially noted. Another article of food, cheap and desired here, is codfish.

COMMUNICATIONS.

Roads.—The railroad bridge at Manati is reported as gone. A smaller bridge, the western one at river Grande here, is out. From this point west to Camuy, the terminus, the track is not seriously damaged, though one culvert is out some 5 miles west of here, in front of Mr. Abrell's house.

The river Arecibo, as well as the Manati, cuts all roads leading to the capital. These rivers are still swollen and difficult of passage. A flat ferryboat can be arranged here, if necessary, and I presume one at river Manati, on main road crossing.

The main road to Aguadilla is quite uneven and soft from sand, Arecibo to Hatillo. Beyond that point the road is good and practicable.

The bridges across Camuy and Guajataca rivers are in excellent condition.

One important culvert being much damaged at the Quebrada Guineo, some 3 miles west of Camuy, I made a contract to have it put in excellent condition for 60 pesos ($36).

The main road from here to Utuado is badly washed and at present impracticable for all purposes. It crosses the river, which is still high, some seven times in reaching Utuado.

The new road Arecibo to Utuado, which passes along the slope of rocky hills on the west bank of the Rio Grande, though not practicable for wheels, can be used by pack trains, but with difficulty.

The road from Lares to Arecibo is never practicable for wagons on account of the deep rocky gorge of the Camuy River and rocky ground from there into Lares, some 12 miles. The Camuy River at this gorge is up, but can, I think, be now safely forded. The complete new roads can be used for pack animals, but is heavy in some places from clay.

Telegraph lines.—The telegraph lines everywhere are broken down. I have parties out and expect the line from here to Isabela will be in working condition by the evening of August 15. Upon the return of my parties the wire will be repaired to Barceloneta. I shall expect the commanding officer of Manati to put the wire in shape east of Barceloneta, and the commanding officer of Isabela to repair the line from Isabela to Aguadilla.

Some 300 yards east of the Guajataca River, which is about 2½ miles west of Quebradillas, the launch *Willie*, of New York, is wrecked. She is a new, strong boat, but is "stove in" on port side forward and on port side aft. The rocks have pierced her bow as well and passed through her bottom. The deck was separated from the timbers on the port side. The boat is fast upon the rocks. I consider her a total wreck, and believe, if repaired, she could not be floated. One anchor and chain I shall endeavor to save and bring to Arecibo.

The sanitary condition of Isabela, Quebradillas, Camuy, and Hatillo is entirely satisfactory. At Arecibo, from the amount of flooded district, an evil smell may be noted when south of town. This comes from decaying vegetable matter. The prevailing breeze blows this bad air away from the town, and I apprehend no evil results. But, as a wise precaution, the alcalde is having all that part of the town that was flooded cleared out and will then wash it with his fire engine. The conditions here are good, and unless people are weakened from famine I see no reason to look for unusual sickness.

Your order of August 11, 1899, placing in this jurisdiction Barceloneta and removing it from Isabela, is just received. The plain country lying between the rivers Grande and Manati is a great swamp, bounded on the south by the railroad and on the north by a range of low hills, separating it from the sea. In the time of flood this section discharges its waters into the Arecibo River, near its mouth, by the Cano Tihurones, and similarly into the Manati River by the extension of the same water way.

There is a fringe of houses along the coast hills, and also along the hills just south of the railroad. The small town of Barceloneta lies on a little higher ground, east of the true swamp, and on the west bank of the Manati River. There are two good roads connecting this town with the town of Barceloneta, one lying along the coast and one just south of the railroad; but it is not practicable to use these roads for supply of that town, as the river Arecibo is not passable for wagons at present. Without definite knowledge I should imagine Manati might supply Barceloneta by wagons to the bank of the river Manati, very near the town. These supplies could be crossed in boats to that town.

A committee has just reached me from the town of Utuado with a most appalling story of death, hunger, and suffering. They state that some 1,500 persons in the jurisdiction have perished and that to-day the food supply is gone and starvation stares them in the face. They state that the road to Adjuntas is impassable and the road to this town, Arecibo—only fit for packs—is difficult. I expect to send medicine and provisions to Utuado to-morrow morning on pack animals.

The population of that district being 40,000, the supplying them with rations from this point will draw heavily upon the food supplies here. Counting upon Isabela, which has been supplied from here thus far, and Utuado, the population drawing food from here will be something over 125,000 persons.

The daily supply to this number will require not less than—

	Pounds.
Of rice	60,000
Of peas	40,000
Of codfish	60,000
Of sugar	30,000
Of salt	15,000

And though the relief rations will now meet these figures, the supply of food here available will be rapidly reduced. I suggest that a shipload of supplies be sent here without delay.

The firm of Roses & Co., the largest dealers here, have to-day ordered a supply of salt from their agents in San Juan. I think, after this, codfish is the article most needed, as the supply of rice is fairly good.

I received to-day an order to send Lieutenant Valentine, Fifth Cavalry, and certain enlisted men to San Juan to appear as witnesses in a court-martial case.

I have ventured to retain Lieutenant Valentine here a few days, as I can not properly leave this station to attend to necessary business in the absence of my only lieutenant. It is very probable that I will proceed in person to Utuado to-morrow, the 15th instant, returning August 16, to personally examine into the truth of the alarming reports received from that point. If I find the situation as reported, I shall endeavor, with native labor, to improve the road from here to Utuado, with a view to supplying that town from Arecibo.

In the meantime over 3,000 rations will be sent there to-morrow, with medicine and dressings for the 300 men reported as wounded and in need of surgical aid.

Upon my return from Utuado I shall visit and inspect Barceloneta. The following plan has been adopted for relief work:

A. Clear communications.
B. Bury bodies, animals.
C. Issue food, medicine.
D. Erect shelter.

(A) Alcaldes to send out parties of peons to open roads through district, so as to reach distant barracks. Employment to be given to men not being fed by charity; pay, 50 centavos. Employment to those being fed by charity, 25 centavos. If they do not care to work, remove name from ration list. Man in charge of road to receive 1 peso daily. Secure tools from quartermaster and from chief quartermaster at San Juan.

(B) Bury immediately when found all bodies of animals and other bad-smelling matter. Bury all corpses when and where directed by recent rules adopted by city council and board of public health.

(C) Establish main ration depot in town, with branch depots in outlying districts. At main depots list all supplies received; determine amount of supplies for one ration; keep full account of all supplies to branch depots. At these small depots keep full list of all persons supplied, together with amounts of rations issued them.

(D) Find out from carpenters the cost of repairing houses and cost of putting up small cheap shelters against bad weather. As soon as roads are passable and some shelter is available, persuade all persons to return to their homes and plant such food plants as may quickly produce corn, batatas, and beans.

(E) Report to health officers all cases of sickness, so they may be properly attended to.

A lieutenant of insular police came into town last night from Utuado, and reports that the only road I can take pack animals into Utuado by is to leave Arecibo by Lares road, following this until near Pajorit, thence southwest to barrio Aibonito, barrio Angeles, and easterly to Utuado. He reports that all roads down Rio Grande Valley are absolutely destroyed.

If the Utuado-Ponce road be not repairable, and it becomes necessary to supply Utuado from Arecibo, a 50-mule pack train here will be much needed.

I inclose a few photographs of the flood at Arecibo, and shall endeavor to take some views on my trip to Utuado.

The hurricane has been a most disastrous affair for the island, and its evil effects will be felt for years. At present the crying need is food, shelter, and clothing.

The first requisite is being attended to: regarding the second, lumber, consisting of boards, small scantling, and nails and shingles are necessary. Any quantity of this material could be used to advantage throughout the island.

If there is any duty on this material at present, I trust it may be removed.

As regards clothing, calico for the women and some sort of drill for the men is all that is essential.

Very respectfully,

A. C. MACOMB,
Captain, Fifth Cavalry, Commanding Post.

POST OF MAYAGUEZ, P. R., *August 15, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report that on the morning of the 12th instant I sent a sergeant and one private from this place with a report of the results of the recent hurricane, as far as I know, with orders to reach you at San Juan as soon as pos-

sible. If they have been successful in their attempts to get across the country by trail in spite of the fallen timber and other obstacles they should reach San Juan this evening. A verbal report was also sent by Dr. Groff, secretary of the Superior Board of Health, who arrived here on the *Longfellow* on the 11th instant and continued his journey the same day to Ponce. To-day Captain Williamson, Quartermaster's Department, reported to me, having arrived from Ponce last night, and left this afternoon for Aguadilla by chartered schooner. By him I also sent such late information as was considered of value. This evening at 7 o'clock the *Slocum* arrived in port, and as it leaves for San Juan this evening at 11 o'clock I send this by Captain Shemson.

In regard to the losses suffered by the hurricane of the 8th instant there is little to report beyond what was given in my first. In that I informed you that there were but 2 lives lost in Mayaguez, those of a woman and a child drowned in the harbor. They belonged to the party of emigrants that sailed from San Juan for San Domingo. Many of the houses in Mayaguez were deprived of their galvanized-iron roofs, but not a single solid structure was blown down, although many huts and frame houses along the beach were destroyed or badly injured. The houses and sugar mills in the surrounding country were unroofed and otherwise injured very extensively. The Anasco River overflowed its banks, carried away the steel bridge belonging to the railroad company, and destroyed thousands of dollars' worth of growing sugar cane. The banana and cocoanut trees were in many cases entirely destroyed, and in others ruined for a year or more to come. The coffee crop has been almost destroyed throughout the surrounding country, it having suffered the worst injury from a hailstorm which beat down upon the trees about 8 o'clock in the morning of the 9th instant, the plants looking as though they had been burned by fire.

The barracks in Mayaguez suffered but trifling damage. Two new stables were blown down, and one old one, rented from the street-car company, was about half blown away. Unless the owner can be induced to make extensive repairs it will be unsafe for horses to be kept in it.

The military hospital was so badly damaged that the patients had to be moved to a large room in the barracks, where they were made very comfortable. A very large and commodious building, newly floored and painted, was fortunately found for rent, and has been rented at a cost of $72 per month for as long a time as it may be needed. It is a very desirable location, and has many advantages as a hospital over the one injured by the storm. Whether it will be worth while to repair the hospital or not is a serious question. Nearly all the walls have a thickness of only one brick, unbonded from top to bottom, and consequently liable to topple over at any time if shaken by an earthquake or a heavy wind.

At Las Marias the barracks were entirely unroofed and the stable destroyed. The troops have been made comparatively comfortable for the present. The town was badly wrecked and some lives lost in the vicinity by drowning. At Maricao the river overflowed its banks and ran through the buildings occupied by the troops, and flooded the town in places. Some 14 persons are reported to have been drowned in the vicinity of Maricao. At La Vega the loss of life was greater than at any other place in this district, the number of deaths by drowning amounting to 33, among them some quite prominent people. The whole number of lives lost in this district by the hurricane, according to the best information I have been able to obtain, will not exceed 100, and may not amount to that.

San German suffered very little in the destruction of life and property. Such damage as was done to the building occupied by the troops can be repaired at slight cost. I am happy to be able to report that not a soldier or horse has been killed or seriously injured at any of the places occupied by the troops under my command.

All communication by telegraph, railroad, and wagon road, except that to Yauco by wagon road, has been cut off and remains so. The telegraph line to San German, which is being repaired by soldiers, will probably be in operation to-morrow. So much telegraph wire has been washed away that it will be very difficult to repair lines unless a supply of wire be sent here. It can be bought here if authority to purchase be given. The old poles have been so badly broken that but few of them can be used again. One or two bridges on the San German road have been either partially or wholly carried away, and in one place the solidly macadamized roadbed has been washed out for more than a hundred yards, so that the main bridge over the river can not be crossed.

The destruction of the coffee crop, upon which most of the planters here founded their hopes of paying their taxes and other debts and obtaining their necessary capital for future generations, is a blow from which the island will not soon recover. The loss of the bananas and small fruits, upon which the laboring classes principally depended for subsistence, will produce an amount of misery almost impos-

sible to realize. Now that they are living on those articles which have fallen to the ground, they are not suffering so much perhaps, but after their supply has been exhausted and can not be renewed the real pinch of hunger will be felt, and the suffering will be appalling.

Granted that relief will be afforded from the United States, the great problem will be to distribute the food so that it shall reach the needy and be given to them in such a way as to neither pauperize them nor deprive the planters of their usual help. Most of the homes of the agricultural laborers are in places almost inaccessible to any but pedestrians.

Should the people be brought to some central points designated in the different parts of the districts to receive food, they will pass a great part of their time in traveling to and fro, which will be so much to be deducted from the time they should give to labor and wage earning. It seems to me a system that would give a certain amount of wages and board (rations) to the men for work done on public roads or other works, if such a one can be devised, would go far to prevent the growth of the idea that men are to be supported and encouraged in idleness by the generosity of the Government. In such a scheme, while the board (rations) would maintain the laborer and keep him in condition to work, the wages would enable him to support his family.

The money which the department commander was considerate enough to transmit to me, before he could possibly know anything about the situation here, will be disbursed strictly in accordance with his instructions: but I am very much afraid that the placing of this money in the hands of the heads of families may result in its being spent for rum or squandered in gambling and the helpless women and children left to suffer. To intrust it to the officers of the towns would entirely defeat the object of the fund, as is well understood by those familiar with the customs of the country.

I have been asked by some ladies of the relief society organized here to-day at the request of some of the Porto Rican ladies belonging to the association, to use my best endeavors to prevent any relief supplies that may be sent here from being placed at the disposal of the mayor or council believing as they do that such supplies should be controlled and disposed of either by the military authorities or the Red Cross Society in order to prevent a misuse of them.

Very respectfully,

C. C. C. CARR,
Lieutenant-Colonel Fifth Cavalry, Commanding.

POST OF MAYAGUEZ, P. R., *August 18, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report that a messenger arrived here at 4.30 yesterday afternoon from Ponce and delivered to me the following communication from your office viz:

Department of Porto Rico, August 9, 1899.
General Orders, No. 115, Department of Porto Rico, August 11, 1899.
Notice, Department of Porto Rico, August 14, 1899.
Letters of August 11, 1899, Department of Porto Rico.
Letters of August 14, 1899.
Circular letters of August 19th, 1899.
General Orders, No. 117, c. s., Department of Porto Rico.

The orders for the commanding officer of Aguadilla and San German were forwarded to them by special messengers yesterday evening as soon as they could be got ready for their respective journeys.

I have already made all the preparations possible for the reception of relief stores expected, and the necessary arrangement for their prompt distribution. The pack train of 42 mules at Las Marias I sent for last night, and it will be of immense service in distributing supplies throughout the country where it is impossible for wagons to go.

A woman's relief society was organized here some days ago, composed of army officers' wives and ladies of Mayaguez, and they have already done good work in making clothing for women and children and furnishing work and wages to needy women.

The suffering for food in Mayaguez and its vicinity is not so great as might be thought, for the town was not very seriously damaged, and the repairing of such damages as did occur has furnished employment to carpenters and other laboring

people, who have been for a long time unemployed. Of course there will be many people who will have to be fed for a while, but the number of these in Mayaguez in proportion to the whole number in the district, including Anasco, La Vega, Las Marias, and Maricao, is comparatively small. La Vega is a barrio or ward of Mayaguez, and, although a hamlet, the loss of life, principally by drowning, is reported to have amounted to 33 lives. The destitute in the village and its immediate vicinity number about 200. Anasco, although the center of a large sugar industry, appears to have been badly managed for some years past, and now that it has received this additional and expensive blow it is in a very bad condition indeed.

The mayor, feeling himself unable to compel the council to do anything to relieve the situation, tendered his resignation. A committee of citizens sent a petition to me to ask that I send an army officer to take charge of the mayoralty, which request I promptly refused to grant—first, because I considered it contrary to good public policy, and, second, because I had no officer to spare for such a purpose.

The town of Las Marias was generally wrecked, and as the village already owes about 20,000 pesos, it can obtain no money to help the needy citizens in repairing the damage done, paying the police, maintaining lights, etc.

The rural population about Las Marias has been in a poverty-stricken condition ever since I first heard of the place, and will require a considerable amount of supplies to put the people in a condition to undertake work of any kind.

Maricao, from the very best information I have been able to obtain, has been for years the victim of officeholders, who have either so managed affairs in their own interests, or mismanaged them as regards the interest of the public, that the distress at present existing among the laboring class must be very great and in need of immediate relief.

Hormigueros, since last year, when it was annexed, on petition of the property owners, to Mayaguez, forms a barrio of the latter, and, so far as relief work is concerned, is included in it. Whatever distress there is must exist among the people living on the sugar and coffee plantations, for what is known as the town of Hormigueros consists of a few houses only, collected about the church.

In view of the urgent instructions of the department commander to see that no one is allowed to actually suffer for want of food, and seeing that the relief supplies promised have not yet arrived, and may not arrive for a day or two, I have taken the responsibility to order the immediate distribution among those without food of a portion of the hard bread in the commissary here. Of this there is more than 9,000 pounds, which was submitted to a board of survey some months ago. The board recommended that it be submitted to the action of an inspector. After having it examined myself, and finding that only a part of it was affected, we directed that it be kept, and when issuing it, if a box was found unfit for use, it be set aside and then inspected, instead of having it condemned all at once. The bread was inspected again to-day, with the following result: Twenty-five hundred pounds of old square crackers are in fair condition; the remainder consists of small crackers in pasteboard boxes, in good condition.

The portion which I have ordered issued to the poor is the 2,500 pounds of square crackers, which are not needed here and will probably spoil if kept in store.

I have already sent some of them to Anasco; the others will go to La Vega, Las Marias, and Maricao by pack train to-morrow.

I have ordered this issue—or distribution, rather—for the reasons given, and with the belief that it will meet with the approval of the department commander. It is the only means I have of relieving the actual suffering of women and children.

The telegraph is now in operation between here and San German, and will be working through to Ponce to-morrow evening. Work will begin on the telegraph line between Mayaguez and Aguadilla to-morrow morning. According to the latest reliable information, much of the wire and many of the poles on that line can be used again. The wires to Las Marias will, I think, be in operation again within two days.

I have heard nothing directly from Sergeant-Major Zimmerman, sent with one man on August 13 with my official report to you of the condition existing here after the hurricane. Some one reported that he (Zimmerman) had been seen north of Lares struggling with the difficulties of the deep streams and obstructed trails in his effort to get through to San Juan, but the report has not been verified.

This letter will be sent by currier via Ponce, as the most direct and practicable route known at present.

Very respectfully,

C. C. C. CARR,
Lieutenant-Colonel, Fifth Cavalry, Commanding.

Since the departure of the currier for Ponce with the original of this letter the *Longfellow* has arrived in port, and this will be sent by her.

P. S.—I inclose a telegram just received from Captain Schuyler, the first to pass over the reconstructed line, showing the condition of affairs at Cabo Rojo:

"The wire seems to be connected for dry weather. Rode to Cabo Rojo this morning. That district did not suffer much, but I did not see it all."

SAN GERMAN, P. R., *August 17, 1899.*

COMMANDING OFFICER, *Mayaguez, P. R.*

SIR: I received the order last night about the issue of rations, etc. I find I have pretty well anticipated them in what I have done, having ridden over most of the division myself and having begun the organization of committees on the principle of boards of charities. From what I can hear from other parts of the island, I judge we are very fortunate here. The most serious loss is on the crops of bananas and other small stuff usually depended on for food supply. This is a great coffee country, and the damage to the plantations will take four or five years to repair, being chiefly in the destruction of the shade trees. The crop this year was to have been a good average crop.

About 25 per cent of the berries are now on the ground, thrashed off by the wind, and about 35 per cent will hereafter drop off by reason of the sunburn. I have met some of the largest and most intelligent planters, and they agree on that point. I have seen some of the planters, and expect to see a great many more when I get a look at the country above Sabana Grande. It is apparent that the trees are gone, all broken off and thrown down on the coffee. The people have suffered most where the water could reach them in the river valleys. Along the Hosario there is apparent destruction. It is going to be a serious problem how to keep the poor in this country without helping them too much. All the people here agree, and I think they are right, that if rations are issued freely the laborers will not work, not even to repair their own homes. The planters need hands to clear up their plantations and save the crops, and they are afraid they can not get them. Even now the windfall has put so much fruit in the peons' way that it is hard to get them to do anything until that is gone and they are actually starving. The sugar planters will suffer very little, as all they need do is to shovel the sand out of their districts, but with the coffee in the mountains it is different. It is not necessary to enlarge on the labor question further than to say that in my opinion the wise plan would be to devise a method by which no rations should be issued (except to the sick and aged) unless there be an equivalent in labor, either on the roads or on the plantations or somewhere.

Suppose we say to the man with a wife and three children, "I will give you five rations of rice (one for your whole family) if you do a half day's work (five hours)." I am told there are plenty of men who would let their families starve before they would work, even under these conditions. The island would be the richer should such men die, but I suppose we can not stand by and see them do it. I do not believe that we ought to issue one ounce of foodstuff to any able-bodied man unless he does a certain amount of work for it, if it is only carrying two stones from one side of the road to the other. It would take more organization to put this into practice. Perhaps the planters are entitled to help at this time. Let them work the peons for their rations, and we will call their superintendence a fair equivalent for the work the peons do on their property.

Very respectfully,

W. S. SCHUYLER,
Captain, Fifth Cavalry.

POST OF MAYAGUEZ, P. R., *September 5, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to report that yesterday the San German and Mayaguez road was cleared sufficiently to allow of the passage of two troops of cavalry, with wagon transportation, by using the iron bridge of the railroad company, on which a temporary flooring was laid. The bridge lately reconstructed by the troops was found, after the subsidence of the water, still in position, and, although injured, can be used again. The whole road is in a terrible condition, and should be systematically repaired throughout the entire length. The stock of relief supplies on hand was sufficient to prevent any suffering while communication was interrupted, and a new supply was sent out with the first wagon that passed over the road.

Very respectfully,

C. C. C. CARR,
Lieutenant-Colonel, Fifth Cavalry, Commanding.

UNITED STATES ARMY POST, AIBONITO.

The formal and unvarnished language of a military report in its very formality produces an impression which carries conviction. Hundreds of other reports, covering this period and the progress of the work, have been received from civil authorities as well as other sources. Every effort was made to so perfect the service of information that no step should be taken in the dark. But in spite of this, the difficulty of ascertaining what the exact situation was at any given period of the work from the beginning was extreme. The difference in language was perhaps the greatest barrier, but the difference in everything else except our common ancestor Adam made exact information almost as hard of attainment as in campaign.

There was neither hesitancy in formulating a plan of relief nor indecision in executing it. In the absence of exact information it was assumed that one-fourth of the population would in a few days be foodless and would remain so until the bananas and plantains could be reproduced.

Habitations and clothing, though everywhere desirable, are not so essential in the Tropics as in more northerly latitudes. But food is a sine qua non to existence anywhere, and its getting and distribution were the two subjects which most concerned the military government almost before the hurricane had fully spent its force.

The details of organization for relief are set forth in a previous report (see p. 298) and are unnecessary to repeat here. The plan sufficed from the beginning to accomplish its object, i. e., to feed the people. Wide latitude was given to the division inspectors of relief (army officers), who were on the ground and responsible for the work in their respective divisions. Exact accountability for supplies was demanded, and all accounts are being duly audited.

It will be observed by reference to the original estimate that the limit of time set for the continuance of relief was four months. This was based upon the best information then obtainable as to when the bananas and plantains would probably be reproduced.

This information was erroneous, due doubtless to the fact that damage to these plants was much more radical than supposed. Indeed, most of these had to be cut down to the ground, and only now, after nearly a year, are bananas and plantains beginning to ripen.

OUTLINE OF THE ADMINISTRATION.

The administrative work of the board of charities of Porto Rico embraced two departments:

First. General relief.

Second. The charitable institutions.

The former sprang into existence in a day and had to be organized ab initio.

The latter demanded a reorganization so radical that it may be said to be de novo.

While in the beginning it was not anticipated that the necessity for relief would extend beyond the year 1899, it was realized that a sufficiently comprehensive headquarters organization would be necessary to enable the work to be carried on intelligently.

Methods, books, blanks, and all the paraphernalia of a business involving the expenditure of a hundred thousand dollars monthly and the distribution of food to a number exceeding that of the entire United States Army everywhere had not only to be obtained, but actually created under conditions not of quiet preparation, but of

immense stress and current demands that could not be put off. Not only had the people to be fed, but a system of accountability devised by which the authorities could be assured that the material received had reached the ultimate individual for whom it was intended.

Cash books, ledgers, journals, letters sent and received, and indorsement books, invoices, receipts, returns, all the thousand and one things that make the orderly conduct of a great business possible, had to be improvised. The number and variety of blanks alone will furnish sufficient evidence of the thoroughness of the administrative work of this board. A detailed account of the organization of the relief work will be found by reference to the preliminary report of September 25, 1899 (p. 298). The plan therein outlined was continued throughout the period of relief, except that after the permanent organization of the municipal boards of charities (coincident with that of the civil government) no responsibility was assumed for the chronic poor beyond the issue of food for them to the local boards.

It was the object of the board to avoid any unnecessary concentration of authority or the hampering in any way of the work in the divisions by confining the inspectors within too narrow limits, as shown in the accompanying circular letter:

The COMMANDING OFFICER,

———, ———.

SIR: By reference to a letter from the adjutant-general of the Department of Porto Rico, dated August 13, 1899, it will be seen that you are made responsible for the distribution of relief supplies in your division and that you are authorized and urged to employ all lawful means in the accomplishment of the work.

The adjutant-general informs me that the intent of this letter was to enable you to so control the actual distribution that so far as possible relief should reach the indigent only.

You are under no obligation to honor a request for rations which is issued to an unworthy person; on the contrary, it is important that such should not receive relief.

If the boards of charity and the barrio committee are neglectful of this duty, you should endeavor to bring them to a realization of that fact; and if they still fail, then suspend them wholly or in part and appoint others provisionally, notifying this board of your action.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

The work involved in the execution of the plan of planters' relief fell wholly upon the clerical force of the chief surgeon's office, as it was my desire to keep this part of the work under my immediate personal supervision.

The organization and administration of this work is set forth in a special chapter devoted to this subject (p. 246).

October 31, Dr. H. W. Cowper, the efficient secretary of the board, whose health had broken down, was relieved from duty in compliance with Paragraph I, Special Order No. 212, series 1899, from these headquarters, and Capt. (afterwards Maj.) P. R. Egan, assistant surgeon, United States Army, was detailed as secretary and disbursing officer.

Of the two administrative branches noted above, that pertaining to the relief work was given by far the greater attention. This was necessarily so. The institutional requirements, neither acute nor of vital importance, were of secondary consideration when compared with those of a people dependent upon this work for their very lives, and during the existence of this board the latter question remained to the last of paramount importance.

The subject of transportation, under existing conditions, was of

primary interest. It was our constant endeavor to so regulate the allotment of supplies to the divisions and so manage shipments as to time and route as to cause them to arrive in the most regular and expeditious manner.

Before the arrival of the first cargo complete arrangements had been made for its ultimate distribution by the following communications:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 17, 1899.

Maj. THOMAS CRUSE, U. S. A.,
In Charge of General Depot, Board of Charities.

SIR: I have the honor to inclose herewith a memorandum showing the amount of supplies to arrive by the *McPherson*, which is to be distributed to the various depots. Please send by the *Borinquen* the material for Fajardo, Humacao, and Arroyo, and the detachment (an officer and 20 men), with their equipments and supplies, ordered to Fajardo. After this boat has discharged at Arroyo (where you will leave a noncommissioned officer in charge of the stores until its return) it will proceed to Ponce for the detachment ordered for duty at Arroyo and carry it to that point, after which the *Borinquen* will return to this port.

Send by the *Slocum* the supplies for Manati (which should be landed by lighter at the mouth of the Manati River); Arecibo and Lares via Arecibo; Aguadilla, Mayaguez, and San German via Mayaguez; Ponce and Adjuntas via Ponce. Upon reaching Ponce the boat will go to Guanica with the detachment and supplies intended for that point, and will thereafter return to San Juan or proceed to such points as the quartermaster may direct.

You will please at once arrange for transportation to interior divisions as follows: San Juan, Bayamon, Caguas, Cayey, and Aibonito, and notify the commanding officer at Arecibo to forward supplies for Lares, the commanding officer at Mayaguez those for San German, and the commanding officer at Ponce those for Adjuntas. Division inspectors (local commanders) are responsible for the transportation of material within their own district.

A reliable noncommissioned officer will accompany each boat to distribute the supplies for each port, and take receipts for same.

The one on the *Borinquen*, as above indicated, should remain at Arroyo in charge of material pertaining to that depot, until the officer in charge shall arrive from Ponce.

Ration cards and books should be sent to each point and will be furnished from this office.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities of Porto Rico.

This was supplemented by the following letter to the several commanding officers:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 16, 1899.

To the COMMANDING OFFICER,

_____.

SIR: I have the honor to inform you that immediately upon the arrival of the supply ship, material will be transferred to the *Slocum*, going west, and the *Borinquen*, going east. These boats will call at ports on their respective routes, and will there land the material for the sufferers. It would be well for you, if possible, to send one man by the boat for each of your municipalities that can be reached by water. I inclose you an arbitrary estimate of the indigents, which undoubtedly experience will alter; also an issue card, a supply of which will be sent you as soon as possible, but which you should at once have printed in adequate quantity if you have a press in your neighborhood. I also inclose a copy of regulations governing issues, etc. Additional distributing depots will be established at Fajardo, Arroyo, Caguas, Guanica, and Bayamon for the supply of municipalities in their neighborhood, of which you will receive notice at the earliest practicable moment. Please keep the board informed of anything that will facilitate the work, and oblige,

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities of Porto Rico.

As the organization developed, the board found it necessary to establish additional depots and to rearrange some of the divisions for the purpose of facilitating distribution. With this end in view, Comerio was transferred to the division of Bayamon on August 20, and Barceloneta from Arecibo to Manati on the 25th.

It was of course desired to place the distribution on a regular and systematic basis as soon as possible. This, however, was made almost an impossibility by a temporarily insufficient supply of means of transportation, even for the few roads that could be made available. The original assignment from the chief quartermaster proving insufficient, on August 23 the following letter was sent to the adjutant-general urging an increase:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 23, 1899.

ADJUTANT-GENERAL DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: The hurricane has so seriously interfered with communication by usual routes of travel that in distributing material this board finds it necessary to recommend that additional wheel and water transportation be provided for its work. There should be two wagon trains organized of 30 wagons each, and pack trains at Arecibo, Manati, Mayaguez, and Adjuntas, if such are not now there. There should also be two schooners chartered, one for use at San Juan and the other on the eastern coast. The former can presently be dispensed with but the latter will probably have to be continued in service for some time.

* * * * * * *

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities.

The foregoing recommendations having been approved by the department commander, were put into effect as soon as practicable and at once resulted in considerable improvement. A schooner was chartered by the quartermaster's department and stationed at Humacao, to transport rations to neighboring municipalities and Vieques, also one for Manati and Arecibo, both of which proved extremely valuable, and were indispensable adjuncts to the service of the steamers *Slocum* and *Borinquen*.

The organization of the general supply depot and "relief" transportation having been largely accomplished early in September, and the requirements for the divisions approximately estimated, the following was transmitted to the officer in charge of the depot.

SAN JUAN, P. R., *September 7, 1899.*

THE OFFICER IN CHARGE OF GENERAL SUPPLY DEPOT,
Board of Charities of Porto Rico.

SIR: The demands to be made upon this board for the next three months having become more clearly defined, I have the honor to ask that you make the necessary preparations to distribute weekly with all possible dispatch at least 800 tons of food. Of this amount approximately seven-sixteenths will go to the west coast, including Ponce, five-sixteenths will go to San Juan and interior posts, and four-sixteenths to the eastern coast, including Arroyo.

The board desires to be informed at the earliest practicable moment of the receipt and issue of material, and should be furnished with a copy of the manifest of arriving cargoes, that the same may be duly acknowledged, particularly to individual contributors. Please send all such you may now have which have not yet been furnished.

All medicines received should be sent to the medical supply depot, where they will be repacked and returned to you for shipment to the different divisions.

All cloth in pieces and like material should be sent to the Woman's Aid Society, where it will be made up, packed, and returned to you for distribution.

All clothing sent from home should be repacked by you and distributed as directed.

To avoid confusion, no relief material of any kind should be shipped except by the authority of this board.

Please inform this board at once of any difficulty that may arise in the performance of your arduous work that it can assist in removing.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities Porto Rico.

Thereafter it was merely a question of maintaining the adopted plan in operation. This was not an easy proposition, for the resources were, especially in the beginning of the work, always taxed to the utmost, and a slight disarrangement resulted in a disproportionate amount of inconvenience.

The ultimate distribution was entirely in charge of the division inspectors, and was usually accomplished by the municipalities interested, who pressed into service such pack trains and ox carts as were available. In certain cases where this was declared impracticable by the division inspector, the quartermaster's department was called upon to pay the expenses incurred. In at least one instance this board considered it necessary to order issues to a municipality to cease until it should furnish sufficient transportation. The transportation was furnished. On many other occasions like difficulties arose throughout the island and were met according to each particular case.

The following letter was indicative of a general plan followed in such cases, which was to take advantage of every condition in the endeavor to supply stations expeditiously:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, August 24, 1899.

COMMANDING OFFICER, *Arroyo, P. R.*

SIR: The department commander directs that upon the arrival of the ship from Jamaica, loaded with vegetables for the relief work, you will take charge of her, and go yourself or send a reliable noncommissioned officer with the ship to the following-named ports, and distribute the material as indicated. The distribution is made by percentage of the total weight of the cargo, the amount and character of which are unknown in this office at present.

	Per cent.		Per cent.
Arroyo	4.5	Arecibo	14.24
Ponce	12.67	San Juan	28.98
Guanica	4.2	Fajardo	3.40
Mayaguez	15.24	Humacao	6.80
Aguadilla	9.92		

This order is contingent upon authority being granted by consignee; in other event the cargo should come to San Juan, or as a last resource be unloaded at Arroyo.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities of Porto Rico.

The method of distribution, with adequate facilities, now became a matter of requisition by a division inspector on the board of charities, Porto Rico, which placed the order with the supply depot, to be shipped in weekly and regular amounts; and this applied as well to material other than food. Medicines were received in quantity. A

large requisition had been filled in New York, in compliance with the following letter:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 25, 1899.

COMMANDING GENERAL DEPARTMENT OF PORTO RICO,
San Juan, P. R.

GENERAL: I have the honor to inclose herewith a requisition for medicines based upon the estimated requirements of the probable sick here for the ensuing three months, with the request that the material mentioned may be furnished at the earliest practicable moment.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President Board of Charities of Porto Rico.

These were transferred to the medical supply depot, where they were repacked on order from this board and shipped with food supplies. This was early realized to be a most important branch of the relief work. The poverty of the municipalities made the purchase of medicine or the engagement of practitioners by them impossible. Until the above requisition could be filled, authority was granted to the surgeons to issue from the medical stores of the Army, according to the letter of the chief surgeon of the 28th of August, as follows:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., August 28, 1899.

To the SURGEON,

_____.

SIR: Such remedies as may be supplied for the treatment of the indigent Porto Ricans will be issued to you, and from these requisitions made by the inspector of the division in which you are located, or from neighboring divisions in which there is no military hospital, will be filled. Until these supplies arrive, you are authorized to furnish such simple remedies from your hospital as can be spared without immediate detriment to the service, resupplying yourself when necessary by special requisition, and ultimately replacing the issue from the relief medicines furnished you as above set forth. You will keep an accurate account of all material received and issues made, giving and taking receipts for the same in duplicate on the regular form and rendering a return to the board of charities of Porto Rico upon completion of the relief work.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., Chief Surgeon.

The following letter explains itself:

Dr. WILLIAM FAWCETT SMITH,
5 Santo Cristo Street, San Juan, P. R.

SIR: You are appointed a physician to the board of charities and will proceed to Humacao by the boat leaving on Saturday, or sooner if possible. There you will report to the commanding officer of that station for service among the sufferers from the recent hurricane. While you are on this duty you will receive an honorarium at the rate of $100 monthly. You will report to the board each week or oftener, giving station and duty, number and character of cases treated, sanitary conditions, food supplies, other wants, etc.; in fact, any information that will be of value in alleviating the situation.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

A similar letter was sent to Dr. Abella Blanco of San Juan, P. R. This was in response to an urgent call from the division inspector at Humacao. These physicians remained under the direction of the commanding officer, Humacao, and did admirable work. Reports were made by them to this board. The plan of appointing outside physicians was not encouraged, but every effort was made to see that the many municipal physicians were impressed with their duty in this crisis. Every material aid was rendered them. The letter to the commanding officer, Manati, is typical of numerous ones on this subject.

SAN JUAN, P. R., *September 7, 1899.*

The COMMANDING OFFICER, *Manati, P. R.*

SIR: Physician at Ciales reports the lack of medicines there. Please investigate and send such as may be necessary, as suggested in a previous communication.

Very respectfully,

J. VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

Reports of such need were closely investigated by the respective commanding officers, and upon their recommendation a sufficient quantity of medicines and medical supplies were forwarded.

As a corollary to this work the board impressed upon all concerned the vital necessity for sanitation, or at least simple cleanliness. There was a noticeable lack of endeavor on the part of local authorities in this direction, and reports frequently reached the office such as to prompt a reply similar to the following:

SAN JUAN, P. R., *August 31, 1899.*

COMMANDING OFFICER, *Fajardo, P. R.*

SIR: I have the honor to state that the following report has reached this office:

"RIO GRANDE.

"No resumption of sanitary work; the streets are full of filth, as are also the back yards and ruined houses."

Please have the matter investigated, and if necessary corrected.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

This was just the class of work that was expected in return for rations, especially in the early days. As elsewhere and frequently noted, how to make the able-bodied work was a most difficult problem. The first system of food distribution embraced a complete plan to secure work for rations, and this vital feature was being constantly harped upon by the board.

On August 28 the following circular letter was issued:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF THE BOARD OF CHARITIES,
San Juan, August 28, 1899.

COMMANDING OFFICER,

———, ———.

SIR: I have the honor to suggest the following as some of the many ways, which have doubtless occurred to you, of employing the indigent able-bodied men of your division.

1. Repairing dwellings, especially huts of the poor.
2. Cleaning the streets, public places, and yards, and removing wastes of all kinds.
3. Repairing gutters, making ditches to drain stagnant water in or about towns.
4. Building stone dikes to divert the overflow of rivers, repairing the approaches to fords.
5. Planting trees in and about towns and on the public highways, etc.

A suitable man should be detailed from the detachment to supervise the laborers, and he should have as many assistants as necessary to direct the assigned work. Time tickets should be issued or some other plan devised by which those who work can be identified and given food, while those who do not will be prevented from getting it. The whole problem is of the utmost importance and its only solution lies in discovering the most effective way of getting a due amount of work for a given amount of food.

The board will be very much obliged for suggestions covering this and other points in its work, looking to an improvement in the service, and so far as possible an avoidance of pauperization of the people.

Perhaps it would be as well to add that the board has no funds except for food and medicines, and will be happy if the amount collected will be adequate for those purposes; it certainly will not be for anything additional.

Medicines when received here will, as a rule, be distributed to the various post hospitals, upon which requisition can be made for such remedies as may be actually needed.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of the Board.

And for the benefit of those indigent, who saw no necessity for working, of which there were many, this circular was issued on the following day:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., August 29, 1899.

The attention of the able-bodied is called to the fact that idleness will not be tolerated in Porto Rico.

All men dependent upon the wages of labor for a livelihood must work for wages or for food; and if any such man refuse to labor, his name will be reported to the inspector of his division, who will investigate the case and, if the facts are found to be as alleged, will place his name on a black list and will thereafter permit no food to be issued to him or his family until he returns to work.

GEO. W. DAVIS,
Brigadier-General, Commanding.

In too many cases reliance in the matter of work for food was necessarily placed upon the local authorities. Results were never entirely satisfactory, and the board was in constant receipt of reports of idleness in return for rations. All were brought to the attention of the division inspector—usually by telegraph, as the following illustrates:

SAN JUAN, P. R., *September, 1899.*

The COMMANDING OFFICER, *Humacao, P. R.*

SIR: Reported that no work is being done in Yabucoa, and able-bodied men in plenty are eating relief supplies. Can not this be stopped?

HOFF, *President.*

Several reports from the district about Ciales, where a deplorable condition of vagrancy was reported, elicited the following letter from the board:

SAN JUAN, P. R., *September 19, 1899.*

The COMMANDING OFFICER, *Manati, P. R.*

SIR: Various reports which have reached this office indicate that no work is being done at Ciales and Morovis in return for food given through this board. Should this be so, it is contrary to the order of the department commander and regulations of this board. Will you look into this matter and so instruct your noncommissioned officers at these points that they will understand exactly what they are required to do and what they must demand of the people? All orders from these headquarters and circulars from this board relating to the relief work have been sent you, and it is hoped that you will require work of all the able-bodied men to whom you give food. This is a vital point and if not insisted upon will result disastrously to Porto Rico.

As you saw by the circular sent yesterday, we are considering the planters as well as the peons, but the success of this plan depends upon the closest inspection and requires our intelligent enlisted men to be on the lookout all the time. Would it not be well for you to select a number of your brightest men, divide up your division into inspection districts, and keep these men on the go all the time as inspectors? This is true soldier duty, as nothing will serve so well to keep the peace.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

Especially to observe the extent of the cooperation in this matter, two civilian inspectors were early appointed, who visited all districts and reported directly to the board.

The board realized that the noncommissioned officers and privates at the ultimate distribution depots could in a large measure enforce

PLAZA, YABUCOA.

this regulation. In fact, so much depended upon their efficient service, and reports having reached the board that indicated an insufficient appreciation of their responsibilities, that the following printed instructions were issued September 20:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., September 20, 1899.

Instructions to noncommissioned officers in charge of subposts of the board of charities of Porto Rico.

First. Food is issued to prevent starvation. It is intended for the worthy poor, and no able-bodied man shall receive any unless he gives a full day's work in return.

Second. A day's ration consists of 1 pound of food. For convenience, food will generally be issued weekly. Three pounds of rice, 3 pounds of beans, and 1 pound of codfish or bacon constitutes the usual allowance for one person for one week. The regulation tin cup holds about 1¼ pounds.

Third. A receipt and issue book must be kept at each depot, in which will be entered in detail all the material received and all rations issued.

Fourth. The local board of charities will furnish the noncommissioned officers in charge with an alphabetical list of the indigents in each barrio to whom issues will be made on a specific day in the presence of the commissario of that barrio.

Fifth. Issue will be made on ration request signed by the chairman of the local board of charities, and the exact amount given will be noted on the request. After the first week the request must be accompanied by six checks or certificates from the barrio committee of absence or sickness for each able-bodied man mentioned on the request. Without these checks or certificates no rations will be issued.

Sixth. No food will be issued on a request if the noncommissioned officer in charge has reason to believe that the applicant is unworthy, and the request will be taken up.

Seventh. Noncommissioned officers on this duty will take pains to inform themselves upon the conditions of the poor in their district, will see that the boards of charities and the barrio committees perform their duty, and will at once report to their immediate commanders any irregularities observed.

Eighth. They will observe the organization and work of the indigent laborers and refuse food to those who fail to work, reporting such cases to the alcaldes and their immediate commanders, who will cause such to be arrested and to work under guard.

Ninth. They will at once cause the arrest of anyone who misapplies the supplies furnished by this board under General Orders, No. 124, Headquarters Department of Porto Rico, dated August 19, 1899, and report the fact to higher authority.

Tenth. They will submit to their immediate commander a weekly report on blanks furnished by this board and will sign receipts and account for all property received by them.

Eleventh. Noncommissioned officers and privates on relief duty are officials of this board. They are in no sense under the control of the municipal authorities and in the performance of their duties will take no orders from them. They will watch over the interest of the board in every way and will carry out to the best of their ability its rule of action, which is that: "No person shall die of starvation and no able-bodied man shall eat the bread of idleness."

By order of the board of charities of Porto Rico.

JOHN VAN R. HOFF,
President of Board.

The shattered condition of the island early impressed the board with the fact that issues would necessarily have to be continued much longer than the originally intended three months. Notwithstanding the fact that all inspectors, all depot commanders, and all others connected intimately with the distribution realized that the earliest possible cessation was absolutely essential, it was generally agreed by those best enabled to judge that the continuance of food issues would be necessary until the time that the actual suspension was consummated, more than six months after the originally estimated period.

As noted above, the board relied upon the men on the ground, who

were best able to judge, and whose recommendations were accepted as final on questions relating to their own divisions.

The chief consideration in this connection was the time when new crops of fruits and vegetables could be expected. Reports were absolutely misleading and contradictory. No one seemed to be positive when another was due. The ignorance on this point was remarkable. It was found to be very difficult to induce the peons to plant, and this was never accomplished to a very great extent. What should have been used for this purpose was instead consumed as the only available food.

A food supply had to be grown before issues could cease, and on August 24 the following circular letter was sent to the commanding officers on this point:

SIR: I have the honor to request that you will instruct your subpost commanders and all alcaldes and boards of charities in your division to see that all vegetables issued in your division which are suitable for this purpose are used as seed and at once planted. The importance of this is emphasized when it is realized that only through a new crop can these people become self-supporting in the near future, and there can be no crop without planting.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

And the matter was further emphasized by the letter of September 6:

COMMANDING OFFICER,

_____.

SIR: I have the honor to invite special attention to the recommendation recently sent you in regard to the necessity for an immediate replanting for a new crop. Should you find any scarcity of seed, such as native rice, beans, corn, etc., in the hands of the people for this purpose, you are authorized to purchase them in small quantities from the local dealers, for seeding, taking care that they are used for no other purpose.

Bills for material purchased for seeding will be sent to this board, in duplicate, with vouchers receipted.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

The board was led to believe that three months would see a sufficiently advanced crop to enable issues to cease. To effect this by the end of December the circular letter of November 16 was directed to the various commanding officers:

DIVISION INSPECTOR,

_____.

SIR: Referring to the issue of rations to needy proprietors, you are respectfully informed that such rations are to be issued only for one week at a time, and that no back rations will be issued. This board does not intend to continue the issue of rations after the 31st of December, 1899, and desires to materially reduce the issue of relief supplies after December 1, 1899.

By direction of the board of charities of Porto Rico.

JOHN VAN R. HOFF, *President.*

This was followed by such reports of distress and absolute absence of other food supply that definite information was sought by communicating as follows:

DIVISION INSPECTOR,

_____.

SIR: Reports have reached this board that in certain districts of the island it will be necessary to continue the distribution of relief supplies after the 31st instant.

Please notify me if there will be any such necessity in your division.

By direction of the board.

JOHN VAN R. HOFF, *President.*

The existing conditions in the several divisions were clearly given in reports by inspectors. Suffice it to say that a continuance in the coffee region was shown to be absolutely necessary. The same condition faced the board a month later, and hopes of discontinuance in January were abandoned. It was thereafter merely a question of waiting for a new crop of plantains and bananas. No prospect of its advent was apparent in February, when the following notification was issued:

SAN JUAN, P. R., *February 21, 1899.*

COMMANDING OFFICER, SAN JUAN, P. R.

SIR: In view of the report that much distress and shortage of food yet exist at various points in the island, I have the honor to inform you that the issue of food will continue through the month of March to such persons and in such amount as you may deem necessary.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

By the end of March it was fully realized that issues could not cease until the long delayed crop of plantains and bananas had ripened, which would be in the latter part of June or early in July. With this end in view, the following letter was sent:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF THE BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., April 17, 1899.

THE OFFICER IN CHARGE OF THE GENERAL SUPPLY DEPOT,
Board of Charities of Porto Rico, San Juan, P. R.

SIR: I have the honor to state that the following is the estimated weekly requirements of food distribution until June 1, when it is hoped that issues to planters may be brought to a close:

	Pounds.		Pounds.
San Juan	50,000	Arecibo	100,000
Bayamon	100,000	Aibonito	70,000
Mayaguez	113,000	Other places	50,000
Ponce	100,000		
Manati	70,000	Total	653,000

After that date it is believed that the distribution of 100 tons weekly will feed the chronic poor until June 30, when we hope to finish the relief work in this form.

You will please arrange your shipping plans accordingly.

By direction of the board of charities of Porto Rico.

JOHN VAN R. HOFF, *President.*

As the month of May passed the plan to be followed in closing became clearly defined, and the 15th of June was set as the date for the last issue to planters. Thereafter issues were to be made only to the local boards for their chronic poor, sick, and infirm. The course of procedure is well explained in the following letter to the commanding officer, Mayaguez:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF PORTO RICO RELIEF,
San Juan, June 5, 1900.

COMMANDING OFFICER, *Mayaguez, P. R.*

SIR: I have the honor to acknowledge receipt of yours of 1st instant, which I at once answered by telegraph, as follows: "Am sending you about 200,000 pounds as final shipment for both your divisions (Mayaguez and San German). If Mayaguez requires more food now it will get less later. Please use your own judgment as to amounts and notify this office." As you know, we propose to stop all issues to planters by the 15th instant. To meet these issues I am assured that there is now sufficient food at the various depots. We have in depot here 600 tons, which will be divided according to needy population, and of which you will get, say, 100 tons for your eight municipalities. This should last until about the middle of

next month, when all of the native food the people have ever had will be ripe. If the island can not then take care of its own people, when will it ever be able to do so?

Trusting that you are not too weary in well doing, I remain,

Very respectfully,

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A., in Charge of Porto Rican Relief.

On the 20th of June a letter was forwarded to Washington asking authority to cease on the 15th of July. The recommendation was approved, according to the following cablegram, which caused all issues to cease on that date:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF PORTO RICO RELIEF,
San Juan, P. R., June 22, 1900.

The following is published for the information and guidance of all concerned in the relief work:

[Cablegram.]

WASHINGTON, D. C., *June 22, 1900.*

COMMANDING GENERAL, DEPARTMENT OF PORTO RICO:

Secretary of War approves recommendation your letter June 2, 1900. You will cease distribution of rations in Porto Rico on the 15th of July. Give as early notice as possible of this intention, so that all citizens may understand the necessity of making other arrangements. Communicate this dispatch to Governor Allen promptly.

By command of Secretary of War.

CORBIN, *Adjutant-General.*

Official copy.

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., in Charge of Relief.

Any supplies remaining on hand at the different depots on the 15th of July were divided proportionately among the local boards of charities in the respective divisions, to be disposed of as seemed to them best.

Several of the divisions were closed before this date. Although the board was most desirous of bringing the issues to an end, it relied in large degree upon the division inspectors for the final decision. When their definite recommendations to this effect were received they were, as a rule, forwarded to the Adjutant-General, with the board's concurrence therein, and a military order suspending the distribution was issued.

The board was in receipt of several thousand dollars, contributed for the relief of the suffering. It was customary to at once acknowledge, with thanks, these donations, and immediately deposit them as a special fund, which was only drawn on with the approval of the board. The accounts of receipts and disbursements elsewhere given show its disposition. The strictest possible methods were in force with regard to its being properly accounted for. As noted above, it was paid out only on approval of the board and upon vouchers receipted in duplicate, and certified to by the division inspector. Checks on this fund were signed by the disbursing officer and countersigned by the president. The fund proved invaluable. It made possible the assistance of professional and expert services, it purchased much-needed medicines and dressings, and the systematic and judicious handling of the business was largely dependent upon it.

As the relief work drew to a close and disbursements from this fund became no longer necessary, it was realized that, as a conclusion to this branch of the work, a thorough audit should be made of all the accounts pertaining thereto, and a final report thereon submitted. To this end

the following letter was addressed to the Adjutant-General of the Department:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE PORTO RICO RELIEF,
San Juan, June 15, 1900.

The ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: As the public relief work in Porto Rico under military control is drawing to a close, I have the honor to suggest that an officer be detailed to audit all the accounts pertaining to the work which come under the supervision of the department commander. It is requested that every detail of the work be examined into and a report thereon made.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., in Charge of Relief.

An officer was detailed as requested, and a complete audit is now in progress. (See p. 196.)

On the 9th of August, 1899, a letter was forwarded to each alcalde, asking that three charitable men be appointed in each municipality to act as a local board of charities. A universal compliance followed, and thereafter these boards were in close touch with the central organization. The responsibility of investigating cases of indigency and issuing ration requests rested with them. Our methods were not always compatible with their ideas, as evidenced by the frequent changes in their membership. The original appointment and every change required the approval of this board, whereupon an official appointment was forwarded through the division inspectors to the interested persons. Resignations were frequent. Perhaps too much was required, according to their ideas on the subject. They resented our methods of accuracy, personal accountability, and inspections when applied to themselves. In many cases they were earnest, intelligent men, who lent their best efforts to the work, and this board was in constant correspondence with them, encouraging, instructing, and urging them. It was not until April, 1900, that a general order made these bodies part of the local governments.

The following letter of instruction was, on April 14, 1900, promulgated by this board:

CIRCULAR.

The MUNICIPAL BOARD OF CHARITIES,

_____.

GENTLEMEN: Your attention is invited to General Orders, 74, current series, from these headquarters, which permanently organizes the municipal boards of charities and makes them part of the local government.

The functions of the board are set forth in a general way in the aforesaid order, but at this moment the most important function you have to perform is to look after the sick, the infirm, the chronic poor, who are always with us, are always a public charge, and who at this moment are even greater sufferers because of the distressful condition of the entire population.

This board desires to place in your hands for distribution a sufficient amount of food to feed the sick and infirm, and requests you to make it your duty to see that none others receive it. The plan of distribution of food through the planters and work on the public roads, it is believed, will supply subsistence for all others. The board therefore requests that you will at once perfect your organization to assist the chronic indigent, giving special attention to the promotion of barrio committees, which should come into direct contact with the individual poor, and upon the recommendation of which you will largely have to depend in making issues. Your attention is invited to paragraph 2, General Orders, No. 124, 1899, as follows:

"II. Any person who misapplies any material furnished for the relief of the destitute by fraudulently obtaining or by selling or otherwise disposing of the same will be punished by a fine not exceeding $500 for each offense or by imprisonment for a period not exceeding one year."

It is the especial desire of the military governor that the sick poor of your municipality should be properly attended to, and he has directed this board to make an allotment of funds for the repair, furnishing, and maintenance of such municipal hospitals as are particularly in need of such assistance. The rule laid down is that this board will assist those who are willing to assist themselves to the full extent of their ability. Nothing will be contributed by the Government unless the municipality gives something—money, material, or labor, or all of these. You are therefore earnestly requested to at once submit to this board a report of the requirements of your hospital and what your municipality has done and will do to meet them.

Porto Rico, during the last eight trying months, has amply demonstrated to her people the necessity for an intelligently organized State and municipal charity.

To-day we all far better understand what such organization means than we did on August 9 last, when the first board of charities was organized in this island. We have learned through trying experience the necessity for careful investigation of alleged indigency and honest supervision of the distribution of the means of relief. We have seen that injudicious charity may be a curse as much as judicious charity is a blessing to the recipient, and we know now that public charity is a public trust, which must be faithfully administered to obtain the best results.

This board asks your hearty, well-considered, and unbiased cooperation in charity work. It asks that as Porto Ricans you will think of your country as a whole and all Porto Ricans as fellow-countrymen, mayhap in need; that you will extend to the needy a helping hand because they are Porto Ricans and not because they come from the east or west or the north or the south; not because they belong to this political faction or that, but solely because they are your brothers and are in need.

By direction of the Board of Charities of Porto Rico:

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President.

These local organizations now remain the only instrumentalities in the municipalities by which the civil government can carry out any general relief work.

The board devised a complete system of invoices and receipts for all supplies and instituted a system of reports, returns, and vouchers by which it is now enabled to account for approximately every pound of food issued. The division inspector receipted to the officer in charge of the general supply depot for relief supplies received, and in turn transferred his accountability to the subdepots, where the food was finally distributed, and the men in charge of which held as their vouchers the "requests" or "orders" upon which their issues were made. Upon the closing of any division or the transfer of its commanding officer a return was required which gave a complete account of all receipts and issues, with the necessary vouchers accompanying.

Besides routine and expected administration work pertaining to the various above-mentioned branches, there were daily occurrences for special consideration. The board was constantly investigating reports of frauds, political schemes of advancement by means of relief stores, statements of unfairness in distribution, and reports of every nature.

In addition to the relief work, which of course received by far the greater amount of time and attention, the board was called upon to administer the business connected with the running of an insane asylum, leper colony, and male and female charity schools. This implies a more or less complete reorganization of all departments of these institutions, the inauguration of repairs, the installation of educational and business reforms, the preparation of reports and returns, and the disbursement of five or six thousand dollars monthly in their behalf. This disbursement necessitated a system of vouchers and bank accounts, a purchasing department, more or less extensive correspondence, supervision of admissions, discharges, and all the minor details which accompany the care of institutions, including the feeding, housing, clothing, and instructing of the diverse elements therein living.

DISTRIBUTION OF SUPPLIES.

REPORT OF OFFICER IN CHARGE OF GENERAL SUPPLY DEPOT.

The question of distribution, as has been frequently noted, was one of the most difficult that confronted the board. The following report of Major Cruse, who was in charge of the supply depot during the relief work, gives a concise account of the manner in which this branch was managed at the general supply depot, San Juan; also a summary of the receipts and issues of supplies and an account of the expense thereto attached:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
QUARTERMASTER'S OFFICE,
San Juan, July 18, 1900.

Maj. JOHN VAN R. HOFF,
Medical Department, U. S. A.,
President Board of Porto Rican Relief, San Juan, P. R.

SIR: I have the honor to submit herewith a detailed summary of the operations of the relief supply depot at this point from August 16, 1899, to June 30, 1900. The great hurricane, which caused so much devastation and loss of life on this island, occurred on August 8, 1899. On August 16, 1899, I was detailed by General Order No. 120, headquarter's department of Porto Rico, to take charge of a general depot of relief supplies that was to be established at this point, where it was intended that all supplies intended for the relief of the stricken people should be received, sorted over if necessary, repacked, and then distributed properly in accordance with the needs of the people at the various points on the island and as directed by the Central Board of Charities. On the same day, at my request, Commissary Sergeant Adams was assigned to me as my assistant. As the necessity for immediate relief was urgent, negotiations were entered into by which Col. F. E. Nye, chief commissary of the department, turned over to me all of the rice, beans, and corned beef that could be spared and the distribution commenced on that date and has gone on steadily until the present time.

At the time of starting in this work many discouraging facts presented themselves, which showed that the work was to be a very exhausting one. In the first place, in addition to doing great damage to houses, crops, etc., the storm had been especially destructive to all large bridges in the country, and the military road, at a great many points, was filled in with débris, caused by washouts and landslides; the ordinary country roads obliterated; the railroads of the country were entirely gone for miles; all railroad bridges over large rivers were gone, and the shipping was badly demoralized; then, too, during the whole month of August, the weather on the sea was very stormy, and sailors, fearing another storm like the great hurricane, did not want to take cargoes, so that it was practically impossible to hire coasting schooners.

As for the depot itself, it existed only on paper, and, as it had no warehouse and the shed at the dock was small and open, storage facilities were very inadequate. This state of affairs, however, was soon remedied, a large new shed being built between September 1 and 25, by the Quartermaster's Department, and the storehouse known as No. 16 was built and turned over by the middle of October, 1899. This latter building (photograph herewith) was used as an office and storehouse for clothing and perishable articles.

To distribute the supplies around the island I had the U. S. tug *Slocum* and two barges. The *Slocum* herself, however, had been out in the great storm and was damaged to such an extent that our first official act after her arrival at this port was to send her to the island of St. Thomas to be overhauled and put in condition; so she went to St. Thomas for this purpose on the 16th day of August, 1899. In the meantime the *Borinquen*, a small harbor boat, able to carry about 60 tons, was, by order of the department commander, placed at our disposal.

I take occasion to say right here that her captain and crew did some of the hardest and most dangerous work that was done during the year, and landed supplies in stormy weather and under most difficult circumstances at Manati, Arecibo, and other points of the island. The *Borinquen*, during the month of October, was also found to be badly in need of repairs and permission was obtained and she was sent to the island of St. Thomas for this purpose. In the meantime Maj. John L. Clem, chief quartermaster of the department of Porto Rico, had placed

at my disposal all the wagons that were available, about 40. This number was found totally inadequate to the demands and later on I was given 60 wagons. These also were found not to be equal to the work required of them, as supplies had to be sent every week to Aibonito, Cayey, Cidra, Hato Grande, Carolina, Caguas, and other points. This number was increased at one time to 75 wagons and they were kept busy going all the time. In the beginning, when the roads were in such a miserable condition and the bridges were all washed out, these wagon trains had many mishaps in delivering their loads, but in no instance was the loss very great, nor in any instance did we lose an entire load. In the meantime, the people of the United State had responded generously to the appeals made to them, and supplies of all sorts were being rapidly forwarded to the island, and at one time during the month of September it looked as if we would be swamped with the large amount of these supplies; however, the wagon trains were kept busy on the roads, which were now, to some extent, passable, and the *Slocum* and the *Borinquen* were not allowed, under any conditions, to stay in port more than sufficient time to get a new load and start for a new destination, so that the supplies reached the persons and the points where they were needed before any deaths resulted from actual outright starvation, so far as known. Anyway, all requisitions for supplies were promptly filled.

On the 8th day of September occurred the second storm, which, so far as San Juan itself was concerned, caused more damage and greater fright than the storm of August 8, and put the sea in such a condition that it was practically impossible to do anything or send the ships out for about a week. The *Burnside*, which had left New York two or three days before this, caught the full fury of this storm and had to lay to for three or four days, and as she was heavily loaded with relief supplies she reached here with these supplies in very poor condition. I make mention especially of this because it was the only one that occurred in the receipt and distribution of these supplies where there was any such loss. All this in spite of the most contrary conditions and weather.

On November 30, 1899, the work had become so systematized and was going on so well that the *Borinquen* was discharged. On November 19, 1899, in the midst of a squall, the *Slocum* went aground on a reef in Fajardo Harbor, and for twenty-four hours it seemed as if she would be a loss altogether, but she succeeded in getting off on the 21st of November, and was then sent to St. Thomas, where repairs were made, and she returned to work on December 27, 1899. In the meantime the U. S. naval tug *Uncas* was loaned to us by the Navy Department, and made several trips, which were of the greatest assistance at this particular juncture. On January 12, 1900, the French railway succeeded in building a bridge across the Manati River, and, much to my delight, we were enabled to ship supplies direct to Arecibo, which, being as it was, the headquarters for issue to some of our most dangerous districts—Utuado and vicinity—was a source of gratification to me at least. So far as the railroad is concerned, it did very good work until about May 20, 1900, when this temporary bridge over the river at Manati was again washed out and has not yet been repaired, and I do not know when it will be. Fortunately we have had very little supplies to ship to Arecibo.

Very soon after the beginning of the distribution of this food a series of returns, receipts, invoices, and other necessary papers were gotten up by the board of charities, and I say here I have never seen anything better adapted for the kind of work. The time when the demand was the greatest for supplies and when the greater part of them were coming in a semiweekly report was required of everything on hand at the depot and everything issued. These reports are rendered at 3 p. m. every Wednesday and at 4 p. m. every Saturday. Later on the distribution slacked up somewhat, and these reports were rendered weekly. By means of these the board of charities could tell at any time what it had distributed and where the articles came from.

I submit herewith detailed statement showing each and every article received and the total amount of food supplies received, commencing with August 16, 1899, and ending May 26, 1900, when the last shipment came from the United States. This shows a grand total of 32,000,000 pounds of food supplies received and a larger amount distributed. In addition to the food stuffs, large quantities of clothing, hardware, and other articles were received. After a careful auditing of accounts, I am very glad to state that my receipts show that all the food supplies have been distributed, and that these totals agree practically. In the beginning it was very hard indeed to get the weights of the articles sent, or even to get the contents of packages, as in many instances they had been donated by charitably disposed persons, and put aboard the boat and manifested as so many articles, or so many sacks of rice, beans, or flour, and not stating whether these sacks contained 50 pounds, 100 pounds, or 200 pounds.

In the first distribution the articles were distributed according to the same method, namely, by packages irrespective of weight. Later on, however, everything was taken up on a return and distributed by weight. Appendixes B and C, which are abstracts of articles received and issued, do not agree exactly, for the reason that on the abstract of articles received the articles were taken sometimes from the ship's manifest; at others, from the marks on the boxes or barrels, and both of these designations would turn out to be wrong when opportunity came for examination prior to issue. For example, a flour barrel, taken up as flour on abstract of articles received, having been marked and carried on as such prior to issue, might, when carefully checked, be found to contain either hominy, corn meal, or rice. It was then issued exactly as was right, no matter if it had been listed wrongly in the first place. These errors were corrected at the time as far as practicable, but there are many cases in which the real contents of boxes or barrels was not known until finally issued at a distributing point. But the total number of packages will be found to check out exactly. One point to be noticed is the large amount of material taken up at various times as "found at depot." The surplusage arose from many causes—lack of proper manifests giving weights; errors in shipment, and, in one instance, taking kilograms for pounds. All the material found upon taking inventory was religiously taken up at the proper time, and to the proper credit it finally appeared when this inventory was taken. Hence I can truthfully say that every pound of every article was taken up and accounted for and just as carefully as issued.

In several instances rice and beans were placed in very poor packages, and I was compelled to make complaint of this, as the loss was such that I thought it my duty to make complaint. As soon as this complaint was made, however, it was remedied in New York and the loss stopped. At no time have I ever found it necessary to take as much as one-half of 1 per cent for wastage, which, considering the fact that the articles had to be unloaded from the steamer, stored in an open shed, and then reloaded either on wagon trains, cars, or steamers, was very small. While speaking of this I take occasion to express through you my thanks to the Merchants' Relief Association, in New York, for the great care exercised in forwarding all materials and food supplies intrusted to their care. Every box was marked to show exactly what it contained, and every barrel and case was marked with its contents and weight, and it was real refreshing to have a shipment from them, because we knew exactly what we had when it came to hand.

During the month of September I had to combat a period of petty thieving at the warehouse on account of the false idea which pervaded the country that the relief supplies were for the people and could be taken by whoever was able to get them, and I spent very uncomfortable nights on account of this, but after I had caught about a half dozen natives with stolen articles in their possession, and also an American, who was working for me on the dock, and put them before the provisional court, where they were tried, found guilty, and sentenced to prison for periods varying from three to six months, the state of affairs ceased to exist, and I think it was remarkable that such a small amount was lost by theft, considering the fact that these supplies were stored in open shed where the sneak thief had wonderful opportunities.

I have been very fortunate in the employees that I have had under me, and for the volume of business handled I claim that our salary list has been small. The employees have been: Commissary Sergeant Adams, one clerk for returns (Mr. Richardson), one check clerk, one storekeeper (at first Mr. Dormitt and later on Mr. Goodwin), at the following salaries:

	Per month.
One clerk at	$60.00
One check clerk at	60.00
One storekeeper at	27.50
	Per week.
One laborer at	7.50

Occasionally an additional laborer at $7.50 per week, amounting to a grand total of $240 per month; but I must explain that this amount was expended but for a very few months, most of the time being but $200 per month. Appendix D shows the total receipts and expenditures of funds during the time the relief depot was running.

On occasion when the *Slocum* was not available, more especially since her departure for New York on May 1, 1900, to be gone permanently, I have made shipment by civilian lines. The expenses that have been incurred in the distribution of these supplies, as far as my office is concerned, gives a grand total of

$36,002.73 expended by the quartermaster's department, none of which, up to date, has been paid by the relief committee, and are as follows:

Hire of stevedores	$15,540.15
Railroad transportation, as shown by bill of lading	13,482.78
Water transportation, as shown by bill of lading	4,133.65
Hire of miscellaneous transportion (bull carts, schooners, and small boats)	1,247.71
Pay of the crew of the *Boringuen*, from August 16, 1899, to November 30, 1899	1,598.44
	36,002.73

These figures give a total of actual expenditure.

In addition, there were relief supplies delivered by Government transportation, as follows:

Slocum—6,600,000 pounds (3,300 tons), which at lowest rate paid civilian lines would be $2 per ton	$6,600.00
Wright—1,206,000 pounds (603 tons), at same rate	1,206.00
Wagon train from San Juan—3,800,000 pounds (1,900 tons), at a low average rate of $6 per ton	11,400.00
Total	19,206.00

The grand total, $55,208.73, should be repaid to the quartermaster's department by some one having the proper authority to do so. I am not aware what arrangements have been made to that effect.

In the case of the hire of the stevedores we obtained very advantageous rates by hiring in connection with ordinary work done for the quartermaster's department and having them under the same check clerks and bosses. The labor of these check clerks and bosses is not counted against the relief fund, as they are permanent employees of the quartermaster's department.

In conclusion, I take great pleasure in stating that the employees I have had under me have worked with great zeal and willingness, day or night or Sundays when necessary, in receiving and distributing these supplies, and I feel very grateful to them for it, more especially to Commissary-Sergeant Adams, and to Mr. Zimmerman, who succeeded him in charge of the depot, and also to Mr. Goodwin, who, while supercargo of the *Boringuen*, delivered the supplies on her without the loss of a single pound at some of the most dangerous points on the island.

Very respectfully,

THOMAS CRUSE,
Major and Quartermaster, U. S. V.

APPENDIX A.

Relief supplies received from different ships from August 18, 1899, to June 15, 1900.

Date.	Ship.	Quantity.	Date.	Ship.	Quantity.
1899.		*Pounds.*	1900.		*Pounds.*
Aug. 18	McPherson	1,278,580	Mar. 8	Burnside	622
Aug. 28	McClellan	2,122,191	Mar. 13	McClellan	1,003,147
Sept. 5	Kilpatrick	1,083,667	Mar. 23	Kilpatrick	
Sept. 14	Burnside	2,038,620	Mar. 27	Burnside	993,566
Sept. 18	McClellan	1,804,405	Apr. —	McPherson	1,599,319
Sept. 27	Buford	1,233,961	Apr. 17	Crook	980,375
Oct. 9	McPherson	2,303,593	Apr. 15	Burnside	920,206
Oct. 16	McClellan	2,080	Apr. 30	McPherson	310
Oct. 25	Burnside	1,800,485	May 8	Crook	656,333
Nov. 2	McPherson	114,451	May 21	McPherson	567,999
Nov. 6	McClellan	35,721	May 27	Crook	8,492
Nov. 17	Kilpatrick	30,215		Total	28,646,834
Nov. 20	McPherson	1,278			
Nov. 28	McClellan	20,000		OTHER LINES.	
Dc. 8	Burnside	878,885			
Dec. 18	McClellan	836,952	1899.		
Dec. 25	Buford	752,455	Sept. 1	Evelyn	52,249
			Sept. 7	Panther	1,600,070
1900.			Sept. 12	Mae	39,900
Jan. 1	McPherson	1,495,658	Sept. 12	Caracas	5,400
Jan. 8	McClellan	96	Sept. 15	Wright	402,150
Jan. 16	Buford	1,000,181¼	Sept. 22	Hildeur	206,795
Jan. 22	McPherson	1,033,059¼	Sept. 23	Philadelphia	683,197
Jan. 30	McClellan	1,006,064	Oct. 25	Resolute	901,627
Feb. 6	Burnside	1,003,445		Total	3,891,388
Feb. 20	McClellan	225			

Consolidated report of receipts and issues of relief supplies.

	Grand total receipts.	Grand total issues.
Beans ..... pounds..	9,983,029	9,983,029
Rice ..... do....	16,132,863	16,132,863
Codfish ..... do....	3,114,822	3,114,822
Bacon ..... do....	1,123,522	1,123,522
Bacon ..... barrels..	260	260
Peas ..... pounds..	499,334	499,334
Peas ..... barrels..	21	21
Peas ..... sacks....	2	2
Herring ..... barrels..	188	188
Beef:		
Corned ..... boxes..	914	906
Roast ..... do....	65	73
Flour ..... sacks....	3,338	3,338
Flour ..... barrels..	69	69
Hard bread ..... boxes..	6,604	6,664
Cornmeal ..... pounds..	46,200	46,200
Cornmeal ..... bags....	1	1
Cornmeal ..... barrels..	1	1
Beans, baked ..... boxes..	536	536
Pretzels ..... barrels..	95	82
Crackers ..... boxes	127	127
Crackers ..... barrels..	158	158
Milk, malted ..... do....	8	8
Milk, malted ..... boxes	194½	194½
Medical supplies ..... boxes	664	665
Medical supplies ..... baskets.	7	7
Medical supplies ..... carboys.	6	6
Medical supplies ..... hhds....	1	1
Clothing ..... pkgs	81	86
Clothing ..... barrels..	58	55
Clothing ..... bags	5	3
Clothing ..... boxes	244	232
Hats ..... boxes..	56	67
Soap ..... do....	39	38
Cottolene ..... do....	12	12
Lard ..... tubs..	14	14
Lumber ..... boards....	2,066	2,066
Lumber ..... scantling..	500	500
General goods ..... bales..	2	4
General goods ..... cases..	25	19
Pork ..... barrels..	14	14
Roofing ..... rolls..	400	400
Nails ..... kegs..	300	300
Tongue ..... boxes..	161	161
Comp. food ..... do....	50	50
Comp. food ..... barrels..	5	5
Miscellaneous ..... parcels..	8	8
Miscellaneous ..... cans....	4	4
Oatmeal ..... boxes	212	212
Oatmeal ..... barrels..	71	71
Cocoa ..... boxes..	1	1
Potatoes ..... sacks....	41	41
Potatoes ..... barrels..	147	147
Ginger ale ..... do....	5	5
Groceries ..... do....	6	6
Groceries ..... boxes	16	17
Salt ..... bags	2	2
Salt ..... boxes ..	1	1
Ears corn ..... bags..	2	2
Wheat ..... do....	1	1
Hominy ..... barrels..	9	9
Hominy ..... sacks....	122	122
Hominy ..... boxes	1	1
Canned vegetables ..... bxs..	480	480
Cornstarch ..... boxes..	2	1
Pepper ..... do....	1	1
Hardware ..... do....	7	7
Hardware ..... bundles..	1	1
Macaroni ..... barrels..	17	16
Macaroni ..... boxes	5	5
Baking powder ..... do....	2	2
Salt fish ..... do....	1	1
Turnips ..... sacks..	20	30
Beef ..... barrels..	15	14
Drugs ..... boxes..	2	.....
Tomatoes ..... cans..	177	177
Supplies ..... boxes	1	1
Supplies ..... barrels..	5	5
Meat, smoked ..... bags..	1	1
Lemons ..... boxes..	7	7
Sheeting ..... bales..	10	10
Can openers ..... boxes..	1	1
Cotton batting ..... bales..	9	9
Candles ..... cases..	3	3
Corn flour ..... boxes..	2	2
Flakes ..... barrels..	5	5
Glassware ..... cases..	1	1
Wire netting ..... bdls..	9	9
Apples ..... barrels..	6	6
Wrapping paper ..... bdls..	10	10
Pins ..... cases..	1	1
Thread ..... boxes..	1	1
Soup ..... do....	40½	41½
Spring cots ..... number..	15	15
Blotting paper ..... bdls..	10	10
Tea ..... cases..	2	2
Tea ..... boxes ..	1	1
Stationery ..... do....	1	39
Sulphur ..... barrels..	10	10
Shredded codfish ..... bxs..	1	1
Sugar ..... barrels..	1	1
Coffee ..... sacks..	2	2
Ham ..... barrels..	1	1
Onions ..... do....	3	3
Apples ..... boxes..	1	1
Prunes ..... do....	2	2
Muslin ..... do....	1	1
Towels ..... do....	2	2
Ink ..... do....	2	2
Shaving brushes ..... do....	1	1
Assorted vials ..... do....	1,200	1,200
Garden seeds ..... do....	1	1
Books ..... do....	4	4
Hominy ..... pounds..	30,400	30,400

APPENDIX D.

Receipts and expenditures of funds on account of distribution of relief supplies at the central depot during existence of that depot.

	Receipts.	Expenditures.
1899.		
September	$452.84	$409.50
October	447.50	454.10
November	414.76	439.50
December	380.60	380.60
1900.		
January	350.00	278.10
February	207.50	247.16
March	$257.50	$375.10
April	265.00	268.70
May	302.50	291.30
June	302.50	291.30
July	40.88	93.33
Do	20.00	.....
Total	3,440.98	3,440.98

It will be observed by reference to the following order that the island was divided into 17 inspection divisions, each commanded by an army officer, who was known as inspector of relief. He had under his immediate charge a food depot, and in the principal town of each district of his division a subdepot where a noncommissioned officer and two private soldiers were on duty.

GENERAL ORDERS, No. 119. } HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 16, 1899.*

I. In addition to the military post upon the island the following places are designated as depots of supplies for the destitute in their neighborhoods: Bayamon, Fajardo, Caguas, Arroyo, Guanica.

A detachment of 1 officer and 25 men will be sent to each of these places to receive, care for, and distribute supplies. The officer in charge will, if necessary, rent suitable buildings for the proper transaction of his duties and will forward to these headquarters requisitions as indicated by paragraph 8, General Orders, No. 117, current series, these headquarters, and will be governed by this order and such other instructions as may be given.

II. The commanding officers of San Juan and Ponce will supply from their posts the officers and detachments for these points, as follows:

From San Juan, Bayamon, Caguas, Fajardo; from Ponce, Arroyo, Guanica.

III. The destitute in the various municipalities will be supplied from depots or subdepots, as follows:

San Juan: Rio Piedras, Carolina, Loiza, Trujillo Alto.
Bayamon: Toa Baja, Toa Alta, Naranjito, Dorado, Corozal.
San German: Sabana Grande, Lajas.
Fajardo: Rio Grande, Luquillo, Ceiba.
Mayaguez: Cabo Rojo, Hormigueros, Las Marias, Maricao, Añasco.
Caguas: Gurabo, San Lorenzo, Aguas Buenas, Juncos.
Adjuntas.
Arroyo: Guayama, Salinas, Patillas.
Lares.
Guanica: Yauco, Guayanilla.
Manati: Morovis, Ciales, Vega Baja, Vega Alta.
Arecibo: Utuado, Hatillo, Camuy, Quebradillas, Barceloneta.
Ponce: Juana Diaz, Santa Isabel, Peñuelas, Coamo.
Humacao: Yabucoa, Naguabo, Piedras, Maunabo.
Aibonito: Barros, Barranquitas.
Cayey: Sabana del Palmar, Cidra.
Aguadilla: Moca, Aguada, Rincon, Isabela, San Sebastian.

IV. While this plan of distribution will be followed as near as practicable, it may be found necessary, on account of difficulty in certain lines of travel, to make slight changes in the depots or subdepots from which parts of municipalities will draw their supplies. Officers in charge of depots are authorized to make these changes when necessary.

V. The Quartermaster's Department will supply such transportation and riding animals as may be required at Bayamon, Fajardo, Caguas, Arroyo, and Guanica.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

An outline of the work in some of these various divisions will prove of value in indicating the character and extent of relief afforded.

HISTORY OF THE WORK IN THE RELIEF DIVISIONS.

Owing to the extent of this report and the expense of printing, it was deemed desirable to omit the history of the work within the divisions, which had been very carefully prepared. While the history of every division shows much that is common to all, yet each has special features which add interest and value to the record. It is therefore to be regretted that they could not be included.

VITAL STATISTICS.

Deaths, by months, in each municipality.

Municipality.	1899.							1900.					
	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.
Adjuntas	93	89	146	117	213	233	169	123	74	73	84	128	193
Aguada	38	58	61	85	83	71	49	31	16	.....	.....	42	56
Aguadilla	[1]58	56	54	71	70	63	59	41	30	40	40	40	62
Aguas Buenas	[1]30	[1]35	[1]61	[1]50	42	35	35	28	16	19	21	15	11
Aibonito	27	39	54	19	46	35	31	51	31	12	21	23	14
Añasco	60	45	68	65	80	93	64	66	41	54	64	59	74
Arecibo	106	132	549	134	201	171	142	99	77	88	72	119	128
Arroyo	13	18	26	22	25	17	32	14	9	10	16	16	33
Barceloneta	3	26	12	23	78	65	60	35	[2]	[2]	[2]	[2]	[2]
Barranquitas	24	42	78	68	73	59	39	22	12	18	14	11	18
Barros	21	29	108	98	95	111	91	46	29	18	19	20	17
Bayamon	[1]50	48	62	66	85	93	98	72	49	50	.....	35	50
Cabo-Rojo	39	47	45	44	43	37	49	41	35	22	41	59	41
Caguas	53	51	29	76	116	110	84	66	66	49	52	39	46
Camuy	16	28	22	32	52	43	21	27	20	18	13	26	22
Carolina	21	27	31	32	31	29	31	32	29	20	23	23	22
Cayey	37	52	118	56	82	88	58	56	54	36	40	50	56
Ceiba	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
Ciales	39	54	136	87	218	213	121	73	58	44	36	26	32
Cidra	14	39	83	19	31	20	19	15	10	9	11	21	15
Coamo	23	39	41	24	35	48	33	39	25	27	30	45	63
Comerio	11	19	106	33	46	54	60	25	24	23	18	17	24
Corozai	[1]40	21	134	50	78	78	56	40	15	32	20	12	18
Culebra	[1]2	3	1	2	2	1	2	2	1	1	3	1	1
Dorado	[1]6	7	10	14	9	18	12	5	10	10	10	8	8
Fajardo	39	30	25	38	30	31	40	59	57	52	45	41	38
Guayama	61	36	36	38	56	61	62	61	50	45	49	53	94
Guayanilla	30	19	77	36	54	51	52	47	41	36	55	42	83
Gurabo	15	23	23	27	30	47	27	25	19	16	12	15	17
Hatillo	26	28	23	25	49	32	32	24	20	12	14	13	20
Hato-Grande	34	41	51	40	39	50	59	48	36	41	24	38	20
Hormigueros	14	12	16	12	[1]12	[1]14	[1]12	[4]	[4]	[4]	[4]	[4]	[4]
Humacao	49	43	127	51	67	70	91	73	72	61	56	42	45
Isabela	61	58	48	101	98	66	53	41	32	25	27	34	35
Juana Diaz	84	55	219	70	140	139	84	89	69	83	67	152	207
Juncos	21	21	35	27	38	40	37	38	26	26	26	24	24
Lajas	37	32	25	14	28	29	30	34	18	26	13	28	23
Lares	85	106	112	138	224	176	133	83	61	50	66	71	97
Las Marias	24	42	55	36	59	83	69	45	29	39	33	57	54
Las Piedras	11	13	27	15	22	[1]15	[1]13	[5]	[5]	[5]	[5]	[5]	[5]
Loiza	14	7	7	14	21	22	21	17	14	12	4	6	19
Luquillo	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]	[3]
Manati	31	39	32	25	46	65	56	36	49	65	41	61	42
Maricao	49	60	60	44	64	84	79	51	40	27	37	68	59
Maunabo	12	21	60	21	38	37	40	28	23	26	20	16	18
Mayaguez	131	161	173	125	158	162	202	159	122	157	180	201	216
Moca	59	69	65	84	121	80	45	28	19	16	27	41	51
Morovis	21	43	183	38	89	65	60	33	24	23	22	20	17
Naguabo	22	21	29	33	46	49	53	50	26	31	22	20	30
Naranjito	5	25	63	41	41	35	32	14	19	17	14	10	12
Patillas	22	29	112	62	47	58	71	61	34	46	34	35	50
Peñuelas	29	21	29	37	61	51	58	43	43	24	50	79	80
Ponce	174	137	410	266	254	251	273	202	175	226	310	392	431
Quebradillas	24	13	21	29	32	36	26	20	14	7	20	17	17
Rincon	22	12	18	22	23	36	20	16	21	16	[1]18	15	21
Rio Grande	[1]27	28	34	35	30	55	51	50	39	[1]30	[1]28	27	24
Rio Piedras	20	27	39	37	58	51	32	32	33	43	21	27	31
Sabana Grande	44	33	38	36	49	46	44	30	26	34	29	30	46
Salinas	[1]17	17	22	18	24	20	30	21	28	18	24	28	20
San German	67	74	55	84	122	95	84	68	34	40	50	62	65
San Juan	61	35	66	61	74	100	85	85	89	123	97	94	85
San Sebastian	68	51	51	74	95	81	55	46	26	27	21	32	34
Santa Isabel	[1]12	12	8	6	14	14	16	17	8	14	9	21	28
Toa Alta	10	12	[1]19	[1]25	37	26	24	20	21	30	[1]20	11	13
Toa Baja	[1]7	6	3	1	15	10	11	7	5	[1]6	[1]6	7	5
Trujillo Alto	6	22	10	30	9	11	14	8	4	9	6	11	5
Utuado	218	309	884	285	308	454	318	198	133	133	153	198	219
Vega Alta	12	17	20	25	36	31	18	13	12	10	10	4	6
Vega Baja	[1]22	21	26	39	44	42	48	34	19	31	16	24	13
Vieques	19	12	20	15	18	18	13	11	10	15	15	26	19
Yabucoa	21	28	341	30	60	67	54	43	34	27	21	22	29
Yauco	108	122	120	139	197	220	185	140	86	92	101	159	246

[1] Estimated.
[2] Included in Manati.
[3] Included in Fajardo.
[4] Included in Mayaguez.
[5] Included in Humacao.

PLANTERS' RELIEF.

STATISTICS OF PLANTERS' RELIEF.

By reference to the preliminary report of this board (p. 298) it will be seen that from the inception of its work the danger of free distribution of food was appreciated, and every effort made to minimize it. No food for the able-bodied man unless he worked for it, was the first rule the board promulgated after the immediate danger of death from starvation was averted.

Many plans to employ labor were discussed and tried, but none seemed to promise so much from every point of view as that which afterwards became so generally known under the designation "Planters' relief."

In the very beginning of the work this plan came up for consideration, but was temporarily put aside because of the allegation that it would be delivering the laborer over to the none too tender mercies of his employer, who not only would cheat him, but, by withholding food, might even deprive him of existence.

But the farms must be restored and planting must go on, or crops could not be raised. All this meant the employment of labor, and labor was not obtainable without an equivalent in something. This something the farmers had not, and could not get, unless this board would come to their assistance by making them its agents to distribute food under well-defined restrictions. The employment of labor in the haphazard way which obtained in the period immediately following the hurricane had proved anything but a success. In spite of our every effort the country was being pauperized, and the peon was reaching that stage when he refused employment from the few who had the wherewithal to buy labor. The situation was most unpromising, and its logic was to force the board to a closer study of the plan of planters' relief.

After due deliberation the board addressed the following letter to the Agricultural Bank, the Spanish Bank, and De Ford & Co., bankers, all of San Juan, and to Credito Ahorro y Ponceño of Ponce.

SEPTEMBER 14, 1899.

SIR: The board of charities, after serious study of relief problems now presenting in Porto Rico, has concluded that the extensive distribution of food to the destitute, rendered necessary by the recent hurricane, and which, unless properly managed, threatens to pauperize the laboring classes, may be made to benefit them and the proprietary class, upon which in any event they must ultimately depend.

The proposition shapes itself somewhat as follows:

The board will furnish to proprietors whose lands have been devastated and who are in financial stress, enough food to feed a stated number of peons and their lawful families, as long as there is food at its disposal or until a new crop can be produced.

In return for this the proprietors must agree to require of the able-bodied men, so employed, a full day's work.

They will also furnish such assistance in the way of material as they may be able, to help the workmen to properly help themselves.

They will also agree, so far as in their power lies, to prevent the misapplication of aid supplies, and their issue to any able-bodied man who fails to render an equivalent in work, either on the plantation or elsewhere in their neighborhood.

The board requests that inasmuch as this food is a gratuity, the proprietors will furnish their peons with a small parcel of ground in which to plant seed to be furnished by him or this board and will render such assistance as may be necessary to enable their laborers and their families to live at least as comfortably as they did before the hurricane.

Appreciating your extensive acquaintance with the best class of Porto Ricans' planters, and realizing that your interests in Porto Rico as a whole, rather than

your personal interest in individuals, will actuate your answer in so vital a matter, I have the honor to ask that you will kindly furnish this board with the names of such proprietors as you believe will undertake to carry out this proposition with due consideration of their employees and appreciation of the efforts of this board to carry out the rule of action it has laid down, that "No Porto Rican shall die of starvation and no able-bodied man shall eat the bread of idleness."

I remain, very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of the Board.

These were answered as follows:

BANCO TERRITORIAL Y AGRICOLA DE PORTO RICO,
September 15, 1899.

PRESIDENT OF THE BOARD OF CHARITIES,
San Juan, P. R.

SIR: We highly appreciate the contents of your favor received yesterday, and have the pleasure to extend to you our congratulations upon your wise conclusions regarding the distribution of the relief supplies which the charitable Americans have donated to the destitute of this island who were sufferers from the recent hurricane.

The proposed measure will furnish food and clothing to the indigent laborers and at the same time will be a great help to the proprietors who from lack of funds are unable to restore their farms. These will also prevent able-bodied men who refuse to labor from getting food. There is no doubt that the planters will meet the requirements of the board over which you so fittingly preside, properly disposing of the material issued to them, not only for their own benefit but for that of the people at large. This bank, with view to most efficiently aiding your board, will request the planters whom we believe reputable to give their opinion upon this matter, and we shall impress them with the efforts the board is making to this end. We would be very glad to furnish you with any information that you may think we can give, in order to carry out your plans.

Very respectfully,

VICENTE ANTONETTO,
Director and Manager.

CREDITO Y AHORRO PONCEÑO,
Ponce, September 28, 1899.

Mr. JOHN VAN R. HOFF,
President of the Board of Charities of Porto Rico.

DEAR SIR: Having acquainted ourselves thoroughly with the plan contained in your favor of the 14th, the purpose of which being the making more effective the distribution of provisions to the working classes in the country, we beg to state that we consider it very opportune, and that its results will be almost instantaneous.

Complying with your request, we beg to inclose a list of the proprietors of the barrios of Ponce whose properties have suffered to a greater or less degree on account of the hurricane of the 8th of August, and I have no doubt that these gentlemen will accept the conditions of your board and comply honorably with that which is intrusted to them.

Applauding the noble purposes of the board in favor of this country, we beg to sign ourselves,

Yours, very respectfully,

E. SOLAVA,
Managing Director.

BANCO ESPAÑOL OF PORTO RICO,
San Juan, P. R., September 29, 1899.

PRESIDENT OF THE BOARD OF CHARITIES OF PORTO RICO.

SIR: Your circular of the 14th instant was duly received and put before the council of the bank for its consideration and careful examination was made of its contents.

The bank appreciates the kindness of the president of the board in having furnished them with a copy of the documents above mentioned, and realizes the great interests displayed in carrying out the laborious task intrusted to the board. They consider it most difficult, because all the efforts and best desires of the charitable people of the North American continent will be unfruitful if the food contributed by them does not reach the hands of the needy, or is made the subject of sordid speculation, or instead of mitigating the hunger of the sick and of the worthy indigents it is turned over to the idle and shiftless.

The bank feels that the board will meet with great difficulties in the course of he relief work.

Perhaps, honorable sir, you are not ignorant of the fact that great trouble has already arisen from the distribution of food, despite the supervision of persons invested with authority. This is the reason why, in many cases, charitable people have refused to accept any charge connected with said work as the only way to avoid the trouble, and even hatred, that the duties of such a position would cost.

Another reason is that our laborers have always been paid at least part of their wages in cash, and consequently they now refuse to work in many instances.

In consideration of the foregoing the bank would advise that part of the relief material be sold and the money so obtained be given in payment of part of their wages. By so doing labor would be easily obtained and the actual condition of the merchants would improve; the free distribution of food constitutes a great danger to the merchant as well.

It has been the custom of the planters for many years to assign to their laborers, who are generally known as "agregados," small parcels of ground in which to plant seed, etc. This is done in many parts of the island, but in the districts of Humacao, for instance, the planters refuse to do it, owing to the great damages that the so-called agregados caused to their farms.

The bank begs to submit the inclosed list of planters, who are known to be worthy people, and at the same time recommends that the alcalde and municipalities be requested to send their reports upon the same matter.

We beg to remain, very respectfully, yours,

CARLOS M. SOLER, *Subgovernor.*

On the next day the board published the following open letter, addressed to the reputable planters of Porto Rico who were in financial distress:

With a view to the mutual benefit of the proprietors and the peons, and to enable this board to so distribute its supplies that no person shall be permitted to die of starvation and no able-bodied man to receive food without working for it, the following is submitted for your consideration:

The board of charities of Porto Rico will furnish to reputable proprietors, whose lands have been devastated and who are in financial distress, enough food to feed a stated number of peons, now destitute, and their lawful families—the number of laborers on any plantation to be determined by the amount of work to be done. This food will continue to be supplied so long as such is at the disposal of the board, or until sufficient time has elapsed for the production of a new crop of the usual food. One ration, or 1 pound of food, will be given the laborer for each full day's work, and his family shall receive like rations gratuitously; but not unless the man works when he is able to. Under no circumstances will the donated food be regarded as wages to pay for labor, but simply as material to prevent starvation; and it must not be sold by the proprietors to anyone, for any purpose or at any price.

In return for this the proprietors must agree to require of the able-bodied laborers employed under these terms a full day's work for the usual number of working days every week. They must also agree—

First. To furnish such assistance as they may be able, in the way of material, to help their workmen to restore their dwellings.

Second. They must assign to each of their laborers a small parcel of ground in which to plant seed of food plants (to be supplied by them or this board), and will see that such seed is properly planted and cultivated.

Third. They will render such assistance, as in their power lies, to enable their laborers and their families to live, at least as comfortably as they did before the hurricane.

Fourth. For their own protection and for that of their laborers and this board, they must agree, so far as in their power lies, to prevent the misapplication of relief supplies and their issue to any able-bodied man who fails to render an equivalent in work, either on their plantations or elsewhere in their neighborhood.

Fifth. They will report to this board at the end of each month the number of peons employed, the number in their families, and the total amount of food received and issued.

Sixth. And finally they will be required to transport the food issued to them for the above purpose, at their own expense, from the most convenient official depot of this board to their plantations.

Nothing hereinbefore written will be considered as preventing proprietors from entering into any proper agreement with their laborers which may be to their mutual interests—such as future payments in money at the usual rates for present work, etc.

Should the foregoing meet your approval, and should you desire to avail yourself of the privilege herein set forth, you will please advise this board accordingly, giving the following information:

1. Name.
2. Address.
3. Number of acres cultivated.
4. Character of crops.
5. Percentage of loss from hurricane.
6. Number of laborers required.
7. Most accessible food depot.
8. Probable time assistance will be required.
9. Reference in the city of San Juan.

A copy of this letter was transmitted to each division inspector of relief for his information.

September 18 the following letter was received from the division inspector, Humacao:

I have received your kind letter. It has been my intention to write to you ever since the hurricane and to try to set forth a few things which have been troubling me. I have taken a good many rides over the country and conversed with every intelligent man I could find. Probably I will not say anything that is new, but I will have eased my mind anyway, so I am obliged to you for the chance.

In the first place, we should look on this country as practically in a state of slavery, where the peons are still the slaves and retain the name, and the planters are the masters. The peons squat on the land, and their right to do so is not questioned. They plant each a small patch of corn or beans or potatoes against starvation's day. They look to the masters for work at 50 centavos a day with breakfast, and 55 centavos without breakfast. This cash is the easy change from slavery by which the planter transfers the labor of finding his peons. The money is spent at once in buying codfish from Nova Scotia, rice from India, and beans from the United States. This is simply because it is cheaper to do so than to raise the stuff. The land is too valuable to be used in raising food. Considering for the moment that cattle is not a food, just think of the pasturage when an acre of land will raise and support a steer. I speak of cattle in this way because it is not a poor man's food and is principally raised for export.

This state of affairs is logical—i. e., not raising food because a more valuable crop is possible—but it is logical only so long as there is money in circulation. If a man has no money, he is not benefited by the cheapness of food and would be much better off if he had planted. Another reason why food is not raised in Porto Rico is the fact that nothing in the line of provisions can be stored and kept from one season to another. We see how soon our commissary supplies spoil in this damp climate. Flour three months on this island has to be condemned, corn meal grows musty, beans the same, pork and bacon get skippery. Potatoes rot in the ground as well as out of the ground. Corn kept in the crib for years, as in Illinois, is impossible, and every ear must be hung up by itself. A planter can not lay in his winter stock of provisions, as in the United States.

Notwithstanding the scarcity of provisions, therefore, we may count on things running along as usual, for it is simply the natural state of affairs, if the landowners continue to employ the peons. The danger lies not in the ruin of the poor, but in the ruin of the rich. The poor rebuild their shacks in a day and have a better home than before; but as soon as some event causes the rich to cease the hire of labor the trouble begins here, as elsewhere, for the poor soon use up their small supply and will have no money to buy more.

In this district of Humacao sugar is the principal crop. At the outside it is damaged 15 per cent. At this time of the year it must be weeded and worked, affording a chance for a large number of hands. But there is not more than one chimney from here to Arroyo; not one sugar mill is in condition to grind the cane.

It will take many thousand dollars to put the best of those I have seen in condition for work. Cane gets sour quickly and spoils rapidly. What is to be done?

The plan is to divide up the expense and loss by putting up a "sugar central," or single mill, for each district or large valley, where all the cane about can be aken This involves an arrangement among the owners. many of whom are in Europe, and it involves prompt work and much money. These are very unfavorable conditions, considering that the mills should be ready by January 1.

It is to be feared that some may find it necessary to abandon their crops on account of the lack of the capital necessary. So far as I know, the planters are making great efforts, but information on this is hard to get and comes to me slowly. They may be even abandoning their fields now, but if they do it will increase the suffering greatly.

If some way could be devised to get American capital available for the regeneration of these sugar mills, it would do much more good than a fleet of transports loaded with food.

Coffee, so far as I have seen, is ruined for this season at least. It is not a large product of this district, though. The trees are stripped of their berries and leaves; the shade trees are blown down. I have seen many trees putting out buds and leaves, but the question of their utter ruin can not be determined for some months, I believe. Coffee picking is off; all work is practically suspended for this season, and consequently people depending on coffee for work are without a job.

Cocoanuts have lost 90 per cent, but I do not think a great many people depended upon them. Plantains and bananas are about gone. They were a considerable article of food. The plantain has a very rapid growth, though. I believe the sweet potato patches are the best and safest source of food raised in the country. They are practically uninjured by the hurricane. I am told potatoes planted after the hurricane are now ripe—a not very likely story, but in the line of my remarks. Rice is a small crop here; some good fields are to be seen. The fishermen still fish along the coast with nets, baskets, and some seines and boats.

Looking at the district to-day it is hard to see how it is in any worse condition than before the 8th of August, except in the dangerous losses sustained by the lords of the land. From what I have seen of the eastern end of the island I would say that Fajardo, Ceiba, and Juncos have suffered a loss that is not appreciable, so far as the necessity for relief is concerned. Arroyo and Piedras have suffered a little and need a little relief. Humacao, Yabucoa, and Maunabo have suffered a great deal. Comparison with the figures in your recent circular is not necessary. Yabucoa seems to have been the center. The place is utterly desolate, even now. I see no chance for it to repair its injuries. In Yabucoa 26 people were killed in one house.

In my district the places which have suffered least have been crying the most, and actually getting the most supplies sometimes. I must say that I consider the want and suffering as greatly exaggerated, and I freely admit so much of the error as I am responsible for. I don't know that I understand what is meant by indigent people. In my opinion the whole barefoot population is indigent—that is, they are idle, shiftless, without ambition, and will not work, except under the prospect of starvation. This does not mean that they ought to be fed. I fear the issue of rations is missing its good intent. It seems impossible to better it except by a new and strict rule. It is too much to expect these commissaries and charity boards to have high ideas of duty when they are not working for pay, and every time they refuse rations they make an enemy in the place where they live.

I propose then a new rule for the entire island of Porto Rico, subject to one exception. The rule is, give no rations except to sick, wounded, widows, orphans, aged, and paupers.

The exception that I propose is as follows: Whenever any planter or employer of labor shall make an affidavit that certain men, named, are habitually employed by him, and that he is no longer able to employ them because of the loss of his property or crops in the hurricane, said persons may receive rations for three months, for themselves and families. A list of able-bodied men to whom rations are thus issued shall be kept by the employer who makes the affidavit and by the comisario of the district. When work is obtainable for these men the issue ceases, and the men receiving rations will sign a written agreement to hold themselves ready to work for public purposes at whatever time they may be called on. Fraud to be punished. I think such a plan would have some chance of success. At all events the present plan has failed in its object.

I might speak of the island of Vieques, which claims that it is in need of 400 laborers, but I have imposed too much on your sense of duty by asking you to follow me through 14 pages, and I am always,

Sincerely, yours,

EBEN SWIFT.

Which was replied to at once as follows:

Thank you for your very valuable and interesting letter, which reached me to-day and upon which I have pondered. Your propositions are incontrovertible. Porto Rico can not be rehabilitated until the proprietors are on their feet again, and many of them can not be placed there until some laws now obtaining are changed and new ones made. Just at this moment the board is preparing a scheme by which we will, so to speak, enter into partnership with the proprietors by furnishing them food to feed their laborers while a new crop is being produced. The scheme is not absolutely ideal, but we must try everything to get these people to work, if we must feed them to keep them alive, and much of that work should certainly go into the farms of those who at present have not the wherewithal to hire labor. The proposed plan accords with the patriarchal scheme set forth in your letter, for, as you say, the relation between the peon and the planter is practically the same as between master and slave, with a difference in favor of the latter. What you say about food production seems to me to be open to certain modifications. I am impressed with the idea that most of the food Porto Ricans eat is raised on the island, and that it has practically all been destroyed. The number reported destitute is an ever-increasing one, and I can not believe that we are being universally deceived. On the contrary, I have expected this from the beginning, for when the meager supply of food that this people had was consumed and the windfalls of fruit from the storm had disappeared there seemed to be nothing left but importation or starvation.

I think worse is to come, and unless we perfect our organization and get everything running smoothly we are likely to have riot, bloodshed, and murder. As Macomb says: "A man will not go hungry or allow his family to suffer if his neighbor has anything that will prevent it. I think you wouldn't, and I am sure I wouldn't, even if it came to a life or death question. You say that your district is in no worse condition to-day than before August 8, except in the dangerous losses sustained by the lords of the land; which goes without saying. since they alone had anything to lose, save in one direction, food—which bounteous nature produced for all and destroyed in a night. To be sure, if the proprietors had money they could employ labor, and labor could then buy food with its wages, which would have made a simple problem for us; but, alas, they have no money and we must as a consequence, I fear, feed not less than 250,000 people for many weeks yet.

By our standards the whole peon population here is indigent; but my definition of the word for present use is starving. It seems to me that the habitations and clothing are secondary to the one essential—food; for mankind must eat to live, and moreover they should eat by the sweat of their brows, and here is the proposition in a nut shell—food for the hungry and work for the able-bodied men.

We certainly can not let people starve to death, and most of these people are on the verge of starvation all their lives. Your rule is a good one, but it is too comprehensive—sick, wounded, widows, orphans, aged, and paupers. Who are left? Possibly 10 per cent of the able-bodied men, who, if not surreptitiously fed by the above-named will starve, whereby we lose the only wage-earning part of the population.

The last part of your letter is practically embraced in the scheme of which I inclose you a copy, and I hope it will work. Certainly if the proprietors take it up they will see that the peons work, while we can see that they are not misused.

Again thanking you for your letter and the good work already done by you, I remain,

Very sincerely,

JOHN VAN R. HOFF,
Major and Surgeon U. S. A., Chief Surgeon.

Very soon after the publication of the open letter applications from distressed planters began to arrive in numbers far surpassing expectation; for the board, basing its calculations on the best obtainable information, had estimated that not more than 500 planters would take advantage of the plan, whereas it actually received and now has on file 12,000 applications.

The estimate of the number of distressed planters was about as close as that of the time of the arrival of a new crop of bananas. Both were based upon such public opinion as we came in contact with, and both were far wrong. Evidently only the great plantations, some 2,000 in number, were considered.

The following estimate, based upon information obtained during the progress of the work, is believed to be approximately correct:

Estimated number of farms in Porto Rico.

Divisions.	Sugar.	Coffee.	Tobacco.	Fruit.
Bayamon, including San Juan	88	275	.....	2,446
Arecibo, including Manati	38	396	66	2,849
Aguadilla, including Lares	40	300	.....	2,394
Mayaguez, including San German	90	778	.....	2,535
Ponce	49	7,453	570	9,260
Guayama, including Arroyo, Caguas, and Cayey	38	2,034	40	3,563
Humacao, including Fajardo	.....	317	.....	1,892
	403	11,553	676	24,939

Grand total, 37,571 plantations of all kinds.

From the foregoing it will be seen that the number of planters who applied furnishes a very fair index of the amount of general indigency in Porto Rico, about 33 per cent.

The service of information in this department of the work consisted in the statement of the applicant, which embraced the facts required in the open letter above quoted, the confidential statement by a reference, and an investigation and report by the division inspector.

If the replies were all favorable, an agreement was filled up (in duplicate) and returned for signature.

It will be seen from the following translation that this agreement was quite comprehensive:

SAN JUAN, P. R., ———, *1899.*

I, ——— ———, manager (or proprietor) of ——— acres of cultivated property in the barrio of ———, municipality of ———, Porto Rico, for consideration hereinafter named, do hereby agree to the following:

1st. To provide work on my plantation for ——— able-bodied men for ——— weeks, requiring from them at least eight (8) hours' work each day for six (6) days each week.

2nd. To render assistance to these laborers in the reconstruction of their homes and towards making them and their families at least as comfortable as before the hurricane of the 8th day of August, 1899.

3rd. To assign to each a small parcel of land, not less than 10,000 square feet, in which to plant seed of food plants, and to see that such seed is furnished and properly planted and cultivated, the product of such cultivation to be the property of the person to whom the plot has been assigned.

4th. To furnish each person so employed with as many pounds of food for each and every day's work which he performs as there are legitimate members of his family, excluding adult males not working on my farm.

5th. To make careful investigation to assure myself that no member of the family of the person so employed by me is receiving relief supplies from any source except through myself, and that no issue is made for any person who is receiving other means of subsistence.

6th. To keep strict account of all food received and issued, and to issue no more food than the amount called for in paragraph 4.

7th. To report to the board of charities each month the number of persons employed by me, the number composing their families, and the amount of food received and issued, and any misuse of relief supplies that may have come to my attention.

8th. To transport the required food supplies from ——— to my farm each week.

In consideration of the foregoing the board of charities of Porto Rico agrees to furnish ——— ———, barrio of ———, municipality of ———, at its convenience and so long as such is at its command, an amount of food approximating one (1) pound per pay for each person employed by him in working his farm and each member of said person's family. But nothing in this agreement is understood as holding the board of charities of Porto Rico liable in damages or otherwise for any failure to supply the whole or any part of the food hereinbefore mentioned.

It is further understood that any misapplication of relief supplies by the proprietor or his agents will be cause for the prompt annulment of this agreement and his prosecution under the requirements of General Order, 124, Headquarters Department of Porto Rico, dated August 19th, 1899.

_____

_____

_____

_____ _____,

[Signature of proprietor or manager.]

Witness:

_____ _____.

(Duplicates.)

DIRECTIONS.—This agreement must be signed and witnessed in duplicate. Both copies will be sent to the board of charities of Porto Rico at San Juan, and, if approved, one copy will be returned to the signer.

If honestly kept the results could not fail to be satisfactory.

Certainly something had to be done with the means at our command, food, to avoid a dilemma, one horn of which was starvation and the other pauperization.

It must be understood that the board had little or no money and absolutely no means of obtaining any, and its fear was that even the food would not be available. But it never failed to appreciate the gravity of the situation.

The Rev. A. B. Rudd, special inspector of this board, wrote September 20:

Allow me to repeat what I have said in former reports. Unless some plan can be devised whereby the landowners may begin work on their plantations this charity work will have to go on indefinitely, and each day it is continued the condition of the people will be rendered more critical. The plan spoken of in a recent issue of the San Juan News (Planters' Relief) seems to me to look in the right direction.

October 18 the alcalde, Ciales, forwarded a resolution of the municipal council asking that the planters who had solicited assistance from the board be helped at the earliest practicable moment, as the present situation does not admit of delay, which might be fatal to the maintenance of public order.

It is absolutely impossible for planters to employ laborers at their own expense, as the hurricane has left them without means.

This paper was referred to the division inspector, Manati, and returned with the following indorsement:

Respectfully returned. The local board wishes the planters to have the rations for distribution, as they think in this way the deserving will be more likely to get them. Under the present method in many cases it is impossible for the local board to discriminate the deserving from the undeserving. Rations have been sent all over this district, medicines have been supplied, and everything possible is being done.

October 9 Mr. Echevarria, a planter of Gurabo, who ultimately received a large amount of food from the board, wrote:

I have just received your esteemed circular, which I have filled out, and confiding in your condescension I take the liberty of making the following observations:

The harmony which is so necessary between proprietor and peon can not now exist in this island as it always has to such an extent as to be envied by other countries. The reason is very simple; the proprietor is deprived of his credit on account of the loss not only of his crops of coffee and minor products, but also everything he planted, making it necessary, so to speak, for him to begin all over again, such was the intensity of the hurricane which wrecked everything. I, who had invested everything I had in plantations, remain without even enough

resources to support my family; therefore, if I am not able to get the board to lend me three or four hundred dollars for the purpose of building my house and barns, of very little use would it be to me to clear my coffee plantations of the large trees.

The laborer will demand wages besides his food and the ration of 1 pound for himself and family, and where am I going to get it? It is necessary to be in his position in order to be able to know what the proprietor of moderate means suffers.

Nobody is able to sustain himself with provisions only; it is necessary to dress. For this reason I asked in one of my former letters for common clothes for men and women, in order to pay wages with these. I believe that the twelve laborers which I stated I required for three months for the first cultivation in the plantations will be contented as soon as they know that besides food they will have clothes.

As regards what I have stated about my farm: Its value to-day is $6,000, it having lost $9,000 of the $15,000 it was valued at in the tax assessments of 1899–1900. If I am helped with 30 per cent of the $6,000 I will begin to repay this amount four years from the present time, at the rate of $300 a year, until the debt is canceled, always giving this debt the preference. The period of three months is necessary for the first weeding and the replanting of the plantations, bananas, and coffee trees, which have been torn up.

I have given the name of Dooley & Co., because they know me, that of J. Ochoa & Co., because I have sold them coffee, and the firm of Esquiaga, to whom I formerly sold coffee. I make these explanations in case they are required. Among the provisions it would be well to send some corn meal, which is a strong food for the peons. Some native chewing tobacco in coils would also be very acceptable, for all like it.

Last Tuesday, September 26, an American was here, and he inspected the farm with my son and saw the damage done by the hurricane. I hope you will attend to my request. I am at your orders.

October 12 Mr. Amadeo, of Barros, wrote:

Since I had the honor of an interview with you a few days ago I have found out on returning to my native town that the food stuffs so generously donated in the United States for the relief of our starving poor are either not wisely distributed or else do not reach the remote districts, where roads are nonexistent and misery is dominant.

In order to remedy this evil, I beg to propose the following remedy, which will both afford relief to the hungry and to the agriculturist left without crops or capital by the hurricane. The remedy is:

First. To hand over portions of provisions and clothing to agriculturists of known probity, who will employ labor on their farms, paying therefor in provisions; thus renewing the cultivation of their crops, and giving food to deserving workers.

Second. Allowing said agriculturists to exchange food for clothing, or vice versa, at the merchants' stores, when either is more urgently required than the other, sending vouchers for such transactions to the board of charities.

This method of relief could be extended by the agriculturists to such portions of rural roads as connect their properties with adjoining ones.

The effort to relieve the distressed planter had scarcely been well started before the board was brought face to face with the fact that following the Spanish rule of law we would be forced to regard all planters as suspicious until they had proved themselves above it; rather than our own more benign method.

Two cases were so glaring that the board felt constrained to publish them as a warning to others. The matter was presented as follows:

The difficulties which the board of charities labors under in its efforts to feed the hungry, help the distressed planters, and prevent able-bodied men from eating the bread of idleness are many and trying.

The plan of a combination between the board, the needy planters, and the peon is now being put into effect, and good results are hoped from it. The modus operandi is as follows:

The planter makes application to the board (on a blank furnished by it) for food for the stated number of peons (laborers), giving various statistics as to his financial condition and the name of some individual, preferably a resident of San Juan, as reference.

The board sends a confidential letter to the reference, requesting certain information regarding the applicant. It also sends a letter to the commanding officer of

the division in which the planter resides, asking that he have the man investigated and submit a recommendation of approval or disapproval of the application. Through this means the board is enabled to take intelligent action upon each case. That the planters do not always appreciate the objects of the charity now being extended to the starving in Porto Rico is evidenced by the following cases which the board is happy to say are exceptional.

Application No. 1.

Señor ——— ———, of ———, applied for food for his laborers and their families under the provisions of a circular letter from the board of charities of Porto Rico dated September 14, 1899.

He reports that he has 200 acres of land under cultivation, chiefly in sugar cane; that his losses from the hurricane amounted to 24½ per cent of the value of his property; that he requires 100 laborers to work his farm; that the food deposit most accessible to his is at ———, and that he will require food for twelve weeks.

He refers to ———, of ———.

Application No. 2.

Señor ———, of ———, reports that he has 150 acres of land under cultivation, chiefly in coffee; that his losses from the hurricane amounted to 75 per cent of the value of his property; that he requires 25 laborers, etc.

The references in the above cases were written to, but as their communications are confidential nothing further will be said concerning them. The commanding officer of the division in which these distressed proprietors reside was then addressed as follows:

"Will you kindly investigate the standing of these applicants in their community and the statistics above set forth and submit your recommendations in regard to placing them on the distressed proprietors list of this board. Upon receipt of your communication (if favorable) agreements to be signed by the applicants will be transmitted through you, which, when signed, you will please return to this board," etc.

In reply to the above the following was received:

"SIR: Your communication of October 7, 1899, and received October 12, 1899, relative to the standing and losses sustained by Mr. ——— ———, is hereby replied to.

"Mr. ——— ——— and Mr. ——— ———, the gentlemen mentioned in your letter of inquiry of October 7, 1899, are of excellent standing, and as far as I can ascertain their statements of losses sustained during the storm of August 8, 1899, are fair and conservative.

"Mr. ——— has, I am informed, some 4,000 acres of land near ——— and vicinity devoted to ———. He has sugar plantations very near ——— of some hundred acres; on this was his greatest loss sustained.

"Mr. ——— has a coffee plantation near ———. His estimate of 75 per cent to be destroyed is conservative.

"As to your question of Government aid in issuing rations to laborers, the employees on these places, I am at a loss for an answer.

"Mr. ——— is reputed to be the richest man in this section of the country. His wealth is estimated to be $1,000,000 (Porto Rican money).

"Mr. ——— is also by common repute wealthy. He now contemplates sending two sons to school in the United States, and himself announces his intention of spending a year in the United States and in France.

"There are men with much less money than these men who are actively working to repair the damage done by the storm.

"Of all men in this township they are the most able to get men and pay them in cash for their work.

"Others (———, ———) have all the men they want at 40 cents per day (Porto Rican money).

"I think after gathering all the facts that I can, that this is the most outrageous demand I ever heard of.

"Very respectfully, your obedient servant, "——— ———."

What hope is there for the present generation in Porto Rico if the conspicuous men on the island have so little appreciation of honor, indeed of common honesty, that they can permit themselves to descend to such practices? We occasionally hear of the misapplication of the relief supplies by the lower classes—poor people who are hungry every day all their lives—but what can be expected of them if those they have been taught to look up to, almost as slave to master, ask charity

from a kindly people, masquerading as suffering for the necessaries of life when in reality they are living in the lap of luxury. The representative men of Porto Rico must learn that before they and their citizens can take their places in the line with the enlightened people of the world, they will have to adopt the same standards of honesty and truthfulness that actuate such people.

The first applicant approved by the board (September 26, 1899) refused to sign the agreement for reasons as follows:

I have the honor to state that as the hurricane destroyed my plantation and house and left me without resources of any kind, it is evident that, having lost the coming crop of coffee—all I had on which to borrow money—I will in no way be able to resume my agricultural pursuits.

Having examined the conditions of the agreement with the board, I have decided that the above circumstances do not permit my signing it. I therefore respectfully return it, because I do not wish to have to render bad accounts of such a sacred trust as that which would be confided to my care.

The second applicant approved also declined to sign for the alleged reason that if he kept his agreement it would cost more than it came to. But those who declined were but a small proportion of those who applied.

Some hitches occurred in the distribution of food to planters, as illustrated in the following:

I have the honor to state that up to the present date I have been unable to get the provisions which are to be delivered to me according to my contract with the board. At a cost of $12 1 sent pack trains to fetch these on two occasions. The first time they were not delivered because the provisions had not yet arrived in Bayamon, the second time because the order for their delivery was addressed to the corporal in charge of depot in Naranjito instead of to the first lieutenant at Bayamon. I therefore request the board to give me an order to receive the supplies once a month in Bayamon, as, on account of the rains, the river La Plata which has to be passed, becomes so swollen that the crossing of it is very difficult.

This letter was referred to the noncommissioned officer at Bayamon, who returned it with the following indorsement:

NOVEMBER 2, 1899.

Respectfully returned to the board of charities of Porto Rico.

Mr. Modesto Archilla applied here for rations on the 30th of last month, which were issued to him in compliance with an official order from the board of charities. He also applied for rations once before, which were not issued, as the order for issue was not at this office, and I was not aware that such order had been issued. In regard to issuing rations for more than one week at once, this is not desired by the board of charities. In my judgment such should not be issued for more than one week at a time.

The added work entailed upon the administration and inspection made large demands upon time that could ill be spared.

Practically all of the delay in executing the agreements occurred during the period of investigation. And finally we were almost inevitably forced to fall back upon the local authorities for information, with every assurance that the incumbents would favor the applications made by their own partisans, and delay those of their opponents.

The agreements were usually made for a fixed period, and frequent applications were received for an extension of time or an increase of the number of laborers. As the months rolled on and the situation, due to well-known economic causes, continued critical, it became the rule to extend the agreements, when approved, so that we could get food to the hungry at their own doors, and thereby keep them from congregating in the cities, with all the attendant evils.

The board required that food should be drawn by the planter, or his legal representative, each week, and that no back rations should be issued. It also required that a monthly report of distributions

should be rendered. In fact, it made excellent rules, many of which it found difficult in having obeyed, for the inspectorate was not strong enough to watch the majority of a million people, who were all apparently struggling "to get something for nothing."

It will be recalled that in the beginning it was estimated that relief would be necessary until the 31st of December, 1899, and its ending would be marked by the arrival of the bananas, or money in some form, and on November 16 the following circular letter was issued:

Referring to the issue of rations to needy proprietors, you are respectfully informed that such rations are to be issued only for one week at a time, and that no back rations will be issued. This board does not intend to continue the issue of rations after the 31st of December, 1899, and desires to materially reduce the issue of relief supplies after December 1, 1899.

But neither bananas nor money appeared, and month by month the time of closure was reluctantly extended, though no new orders to planters were issued.

Finally, early in March, when conditions were quite as bad as any time during the course of the work, the following was received by the military governor:

WAR DEPARTMENT,
Washington, February 27, 1899.

SIR: I have to-day telegraphed you as follows: "I have ordered 500 tons provisions shipped by next transport. You are authorized to largely increase issues of rations through coffee planters to all persons who will work on their plantations. Further explanation by mail." A great deal of delay will evidently ensue before final action by Congress on legislation to Porto Rico, and it is evident that we ought to give such relief as is possible in the meantime. We have about $1,700,000 of the War Department emergency fund placed at the discretion of the President by Congress at the last session, and out of which we have been paying for the rations already furnished. The Senate Committee on Porto Rico is desirous that a considerable portion of this should be applied toward the relief of the distress and, if possible, securing much-needed work on the coffee plantations; and to secure this they have unanimously reported to the Senate a proposed amendment to their bill to provide civil government authorizing the new government to issue bonds "and to reimburse the United States for all moneys which have been, or may be, expended out of the emergency fund of the War Department for the relief work of the industrial conditions of the island caused by the hurricane of August 8, 1899." This, of course, carries an approval of the application of the emergency fund for the purpose indicated, and we have secured the assent of the President to further expenditures on a liberal scale.

Mr. Amadeo informs me that work is now being done to some extent on 60 per cent of the coffee plantations of the island, and that this has been made possible by the distribution through the coffee planters to the laborers, who have really worked on the plantations for the rations.

I suggest for your consideration, with your greater practical knowledge of the conditions, that this method should be extended; that communication should be opened with the owners of the other plantations, so far as practicable, and that a regular system be inaugurated of furnishing rations through the coffee planters to laborers who will put the plantations in the necessary condition for raising coffee; that this should be done to as great an extent as rations can be made practically effective in producing this result, thus at the same time feeding the hungry and securing the improvement of the plantations, and that you take from the planters an obligation to pay to the government of Porto Rico the value of the rations, with the proper proportion of the cost of distribution, with interest, within some specified time, the obligation to be a charge against the land or the crop, or both. Mr. Amadeo thinks that this would be effective. If in your judgment it would be, you are authorized to take such action, making such modifications in the plan as appear to you to be desirable and regulating your expenditures for the time being upon the basis of the application of, say, $1,000,000.

Very respectfully,

ELIHU ROOT, *Secretary of War.*

Brig. Gen. GEORGE W. DAVIS,
Military Governor of Porto Rico, San Juan, P. R.

At the time of the receipt of the above letter rations were being issued to planters as follows:

Divisions.	Agreements.	Rations.	Divisions.	Agreements.	Rations.
Arecibo	71	5,626	Mayaguez	140	7,554
Aguadilla	1	10	Manati	402	15,807
Aibonito	21	775	Ponce	104	9,636
Adjuntas	43	947	San Juan	76	3,030
Aguas Buenas	23	1,293	San German	8	157
Bayamon	262	8,803			
Humacao	5	235	Total	1,155	53,828

Already hundreds of thousands of pounds of food had been gratuitously issued to planters, and, aside from the complicated legal machinery involved in the execution of the scheme proposed by Mr. Amadeo, it seemed that for the comparatively short time it would be necessary to carry on the relief the plan already in operation had better be continued. Moreover, in the opinion of this board, if money was available, it was far better to give it to the peon for his labor on the public roads than to sell it to the planter in the form of food, perhaps to be reconverted into money, and thus fail to subserve the very aim and object of the appropriation.

In this view of the case the military governor sent the following cable:

SAN JUAN, *March 13, 1900.*

SECRETARY OF WAR, *Washington:*

Your letter February 27 received to-day. I recommend that, until all the coffee farms are cleared, the distribution to planters be continued under present scheme. * * * This will take about two months and cost about $250,000 in food and transportation. Meantime contracts may be let for road work covering $750,000, work to begin within a month and continue for about eight months. This, I believe, will relieve the distress and enable all coffee planters to clean up. To stop issues on present plan, which involves no cash payments by beneficiaries, and now demand lien on property of same and other planters to secure food will be attended with great difficulty, discontent, and irritation. * * * Expenditures on roads in employment surplus labor is best method of relief I can suggest. Such investment of capital gives visible and permanent assets.

In almost every municipality are some scores, hundreds, or thousands of hungry people who are still being fed, and must continue to be or they will starve. Many are unable to labor or go where labor can be secured.

GEO. W. DAVIS, *Brigadier-General.*

The foregoing plan was approved and the board immediately proceeded to increase its office force to meet the impending avalanche of applications. What the mere clerical work demanded by the handling of 11,604 applications was may be somewhat appreciated when it is noted that each application required the writing of 15 different papers.

To be sure, most of them were more or less in print. But the mere handling and rehandling of 175,000 papers is no small job.

The work which devolved upon the inspectors in investigating the applicants was very irksome and unsatisfactory, and the difficulties which surrounded them were oftentimes almost insurmountable—so much so, indeed, that to the delay and nonarrival of these reports may, in the largest measure, be attributed the inability of this board to enter into agreements with a larger number of planters.

Moreover, several of the most zealous inspectors were so strongly impressed with the conviction that planters' relief was at this time unnecessary and simply a temptation to fraud that they disapproved all applications of this character.

On March 22 the board addressed the following communication:

MILITARY GOVERNOR OF PORTO RICO,
San Juan, P. R.

GENERAL: I have the honor to inform you that in accordance with your instructions this board is completing the necessary inquiries to enable it to supply food to some 3,000 additional coffee farmers, who have not yet directly been supplied with food, to enable them to get labor to clear their farms. It is presumed that this will require an additional issue of 100,000 rations daily. If, then, we continue to issue to the planters now receiving, the total requirements on this account will be 200,000 rations daily, and if we add to this 500 rations for the chronic poor for each of the 70 municipalities, 35,000 rations, we find that the extreme demand will be 117 tons daily or 235,000 rations.

So large an amount of food has not yet been required, and it is not believed that the demand will exceed or even equal 500 tons weekly; nevertheless it will not be far from this amount. The board believes that the continuance of this very undesirable, but under the circumstances most necessary, method of relief should be brought to a conclusion at the earliest practicable date.

Each month since the beginning of the year we have announced that the food distribution would cease with the month, only to find that the new month brought no relief to the distressing situation, and we must continue a form of assistance most demoralizing to the people but absolutely necessary to preserve them from death by starvation.

The seventeen weeks we estimated that relief would be necessary are now rapidly extending to eight months, and the end is not yet.

We trust, sir, that the time has now come when the board can authoritatively announce a date after which no food will be issued, and we beg that you will inform us accordingly.

The first indorsement from the governor read:

Respectfully returned to the board of charities.

It is the opinion of the military governor that, under the authority of the President, as conveyed in the inclosed letter from the Secretary of War (February 27), issues should continue to the helpless poor until such time as it is known that relief in some active form is reaching the needy. In other words, it is desired that at present food issues be continued to those whose starvation would otherwise result, and to the extent of saving their lives. The proposal of the board to add to the list of coffee planters the names of those who have not hitherto been assisted is approved, and the help given to the previously assisted planters should be discontinued as rapidly as practicable.

The aggregate of issues weekly should not exceed 500 tons of all kinds, this to be reduced as it may be found practicable to do so.

Let requisitions be made on the Department for such additional medicines as may, in the judgment of the board, be necessary for three or four months; and as some time must elapse before requisitions for medicines can be filled, recourse should be had to medical supplies in the hands of local druggists at the best purchase rates obtainable.

The military governor does not believe that it will be practicable to wholly discontinue food and medicine issues before the 1st of July, though the volume of issues can probably be greatly reduced below 500 tons per week.

By direction of the military governor:

J. S. BATTLE, *Aid-de-Camp.*

The necessity for careful investigation is illustrated in the following letter:

I have the honor to call your attention to the exceeding discrepancies between the statements made by applicants for charity and the records of the municipality. As far as I can understand, the better class of people do not apply, while the lazy and shiftless are most urgent in their appeals for charity that should have become unnecessary long since. I would recommend some system of investigation before issuing rations to this class, many of whom are evidently making false statements in their efforts to get free rations.

As to the amount of rations to be issued, I would suggest that this be settled in your office, as I have forwarded you the necessary information for deciding upon the matter. As yet I have no idea what amount of rations should be estimated for.

The applications will be forwarded promptly to you, with the information as to the land actually owned and actually cultivated, and the actual products thereof,

as shown by the records of the municipality. The sentiment of this community is against the further issue of free rations.

In the management of the depots and issues the officer on the ground had the widest liberty. He was authorized to suspend issues to planters at any time when in his judgment such were no longer necessary or the agreement was not being observed.

As the agreements were rarely observed, this arbitrary power was never a cause for legitimate complaint, and indeed it was seldem exercised when the conditions did not clearly demand it.

In certain of the municipalities the authorities made every effort to facilitate the applications of their constituents by having blanks printed and furnishing all required information.

In one case the board was so impressed with this fact, and some information it had received from various sources that the facilitating of planters' applications had become a business, that the following letter was sent:

The board is receiving a large number of applications from planters, such as inclosed, which someone has gone to the trouble to have printed.

The board will be glad to have you investigate the matter, with view to ascertaining if any charge is made for having these applications filled up.

To which answer was received as follows:

I have the honor to inform you that I have investigated the subject of your letter of the 28th of March, 1900, and have the following report to make: The alcalde of Bayamon and the leaders of the Republican party here had the blank forms printed, and sent them out into the surrounding districts with a letter, saying for all Republicans who had not received rations to fill out the blanks and send them to San Juan.

As far as I can learn there is no charge made for the blank forms.

From which it would appear to have been a matter of politics, not business.

The interest taken by some of the local officials in forwarding that of their constituents resulted in giving certain districts an apparently disproportionately large number of "contracting" planters. This condition was also contributed to by those of the division inspectors of relief, who, more deeply impressed with the need of this form of relief, were more general in their approval of the applications referred to them.

As frequently stated, this board made it a rule to accept the recommendations of the officer in loco as its safest course, though it was sometimes difficult to reconcile the varying opinions of those whose districts were within almost a stone's throw of each other.

In reopening and extending relief to planters the board availed itself of the services of Mr. Seijo, of Utuado, whose assistance in investigating the applications from planters in Utuado was much appreciated.

On March 30 he wrote as follows:

I have the honor to state that I have, instead of making separate report for each petitioner, made a whole one up to this date, and which contains the real data taken from the municipal record books, although they have larger amount of acres under cultivation.

I recommend that should Mr. Benito Quevedo and Mr. Louis Egeral make an application for food, to grant the same.

I would invite your attention to the indorsements on contracts returned, inclosed, of Mr. José Rubert and Gumersindo Quiñones, also to that communication from Antonio Irizarri, and would respectfully ask whether those planters who have not received the rations noted in agreement can claim them from the new supply?

This was replied to as follows:

I have the honor to acknowledge receipt of yours of 30th ultimo, and to return you herewith separate applications to be signed by each applicant, with a letter of

recommendation to be filled in and signed in duplicate. Please return all these papers completed to this office.

Planters who have agreements can present them to the commanding officer, Arecibo, and secure food if the commanding officer deems necessary. A certificate from you would be of assistance to him and them.

No back rations will be issued.

It was out of the question to enter into an agreement with a planter without investigating him, and this was often found almost impossible.

April 6, 1900, the following petition was referred to the board:

BARRANQUITAS, *March 31, 1900.*

MANUEL CARVAJOL et al.:

Respectfully explain the disastrous agricultural and social conditions of the locality, and request the Government to afford them means and relief.

There are a large number of small farmers who own coffee plantations and should be helped with provisions to feed a certain number of laborers.

Impulse should also be given to public works, as a means of giving work to the idle.

There is a great need of a road connecting this town with the "Central Road," and good work might be done in this sense.

This was referred to the division inspector of Aibonito, and returned with the following indorsement:

I am issuing about 2,500 rations weekly at Barranquitas, which is all that I can pack over. Am working about 300 men. At least 150 are working in the Aibonito district and are drawing rations from that point. If rations were issued only to those who need them, 3,000 rations weekly would be sufficient to carry these people through until bananas and plantains are plentiful, which will not be until June.

As to the plantation owners, there is no doubt but that they need assistance, but it is hard to tell who needs rations, for they all tell the same pitiful story, and I am sorry to say that they do not hesitate to prevaricate. Now, if one is issued rations they all should receive them. This would be an immense undertaking, for I have over 30,000 people in my district.

I have come to the conclusion that as long as we can not feed them all, we had better cut the planters off and continue to issue rations as we have been doing. There have been about 150 applications for rations sent me to investigate; some 25 are from Barranquitas, while most of the others are from Barros. This municipality has a population af about 15,000.

I have recommended with a few exceptions that rations be issued to 4 laborers for 25 acres of land for eight weeks, and their families do not exceed 5 each. I did this because the people have not been receiving their share of rations. I did not think at the time there would be so many applicants. If rations were issued to all the laborers called for and for the number of weeks they would require them, each plantation owner would receive rations for at least 15 laborers and they would require them for at least four or five months. They do not hesitate to ask for as many laborers as they have acres of land, and some of them more. About one-third of the road is already completed. If I had the tools which I asked for March 25, I would set more men to work, but probably would not use many more rations. I have no trouble in getting men to work.

An acknowledgement was sent to the writers, stating that food would be issued to the planters who were properly recommended; but that this board had nothing to do with roads, which are controlled by the board of public works.

The following correspondence shows a not uncommon phase of the work which made it oftentimes exceedingly disagreeable to our officers. I find no evidence that the example of the sons of Jacob, who in time of famine went up into Egypt to purchase food, had any effect here. These people, whom we are striving with might and main to help, seem to have taken it as a right rather than a favor, and I question whether there is any widespread gratitude to the United States for all that they have done, but rather general dissatisfaction that more was not done.

I have the honor to report that I have so far been able to draw but two weeks' supply, though I always reported to the relief depot every week without fail. The first week I was issued 1 bag of rice and 37 pounds codfish, not weighed. The second week I received 75 pounds beans, 40 pounds rice, and 8 pounds codfish, which were weighed at Mr. José Colon's store.

This amount is not sufficient, and I can not comply with what I have agreed to. I know not whether these irregularities are due to the animosity existing on the part of the man in charge—Mr. Britapaja—against me, or are merely orders from the board of charities of Porto Rico. I return the order for rations, which may be canceled in case the board refuses to modify same.

This letter was referred to the division inspector, and returned with the following indorsement:

I do not understand the man's statements. He has presented himself at this office but twice, and has drawn his full allowance each time. I have his receipt for both issues for 245 pounds each. I trust that you will pay no further attention to such false statements as these. My business books are open for inspection, and I would like to have you send some one up to inspect my methods.

I have no scales, but we can guess approximately at weights, which, under the circumstances, I think should be near enough measure. I can not always be present at each issue, as my duties in the custom-house take me away, but I make it a point to spend a portion of each day superintending the issue. The interpreter is a man I have the utmost confidence in.

April 4 the division inspector, Manati, reported as follows:

I have the honor to transmit herewith some of the applications for contracts from Manati, with my recommendations on the last page of each application.

The signature appearing above mine is that of the alcalde of Manati, to whom all applications in this municipality were referred for remarks concerning the official records.

I do not favor the issuing of any more rations on contracts, other than on those now approved as I believe that this new list will be as hard to discontinue as the old one has been. I am now issuing rations to alcaldes and comisarios of barrios, and I believe this plan is working very well. There is much fraud perpetrated under the contract system, and I do not believe in 50 per cent of the cases that the peons get what they are entitled to.

There are many, too, living on the farms of contractors who are also drawing rations as proprietors.

I have given the people of this locality to understand that all rations will cease on April 30, and do not believe in issuing contracts extending beyond that date under any conditions. Bananas will be quite plentiful by that time, and work on the roads in the eastern, western, and southern sections of the division begun, so that all rations then necessary to be issued can be done by alcades and comisarios.

If they misapply the rations they are responsible to the people and no one else.

The inclosed 24 applications for contracts are only a few that I have had time to investigate. I still have some 575 new applications, which I will forward as soon as I can give them my attention, but as I have before stated this will be followed by another flood of similar applications from others who have not made them, provided there are any proprietors left who have not done this. I inclose herewith a letter from the alcade of Vega Baha acknowledging the receipt of the 3,000 rations sent him to work his unemployed.

In his letter he says nothing about there being many in that condition in his municipality, nor did he when I passed through that town about two weeks ago.

I had one delegation of unemployed here. The entire delegation was put to work on the target range for a few days, and I have not seen a delegation since.

In regard to your telegram concerning transportation of supplies here. I have four or five army wagons here and can readily transfer 60,000 rations weekly from the depot to the storehouse with them. You will probably have a complaint from the person that has been drawing some $200 a month for his services that enough rations have not been issued here, and also from the French Railway Company, but this is but natural. I am endeavoring to get rations to the needy, and to keep them away from the rich and those who do not need them or dispose of them as soon as drawn. These last two are much more difficult to do than the first, but I hope to succeed in both before many weeks.

The following report is of interest as illustrating conditions in the more easterly section of the island:

HATO GRANDE, P. R., *April 6, 1900.*

The COMMANDING OFFICER,
Post San Juan, P. R.

SIR: I have the honor to submit the within-inclosed report of the inspection of planters, district of Hato Grande, P. R., who are receiving aid from the Government.

A STREET IN CAYEY

All planters named in this report live in the barrio of Quebrada Arens, which is one of the poorest of this district, they being small planters having from 2 to 6 men working.

I had an interview with the planters of this barrio Saturday last and interviewed the men working for them on Sunday and Tuesday, and find the men satisfied with what they get in rations, but in many cases the planters have neglected to give the acre of ground allowed them, but they are hastening to do so since they find there is an investigation being made.

In the case of planter 590, he has given the acre allowed by law, but the workmen state that they must give one-half of the products of this 1 acre to the planter. I find the same case with planter 616, who only gave the acre to the workmen since I made the investigation one week ago.

While in many cases these planters have not lived up to their agreements, as far as giving the workmen a piece of ground, the workman himself seems to be satisfied, and to stop the issue of rations in any of these cases would cause a great deal of suffering among the working class, as the planters, as far as it is able to find out, have no money to work their ground.

Will submit report of other cases as soon as I can get information.

Very respectfully,

DANL. BROSE,
Corporal, Company I, Eleventh Infantry, Commanding Relief Station.

Had it been practicable to make as close an investigation into all cases as was done in the following, a much more accurate knowledge of the facts might have been obtained; but if anyone was starving, what would he have done in the meantime?

HENRY BARRACKS, *Cayay, P. R., April 8, 1900.*

POST ADJUTANT:

SIR: In compliance with instructions contained in your letter of the 5th instant, I have the honor to report that I have personally investigated the circumstances of Señor Juan José Baldrich, planter, living about 3 miles from Cayay, with a view of continuing the aid now rendered him in the way of relief supplies by the board of charities of Porto Rico.

From a thorough investigation of his affairs and from his own statements, I am of the opinion that the issue of rations to the gentleman named should cease at once, for the following reasons:

Baldrich owns in his own right and name the following list of property, which he claims is clear of incumbrances of any kind or character: Six hundred cuerdas of good land, 15 horses, 125 cattle, and a lot of miscellaneous personal property.

He claims not to owe a dollar in the world, and he evidently has some money, for he is paying his peons 25 centavos and Government rations per day. Prior to the hurricane he paid the same amount and rationed the men and their families.

Since the hurricane he has cleared the portion of his coffee not destroyed which he claims to have in good shape, and he has planted other products until he now claims 100 cuerdas coffee, 80 cuerdas bananas, breadfruit, etc., 4 cuerdas yautias, 6 cuerdas ready for rice, corn, etc.

I traveled over a good portion of his land, and believe he has approximately the amounts claimed in cultivation. He has been through his entire crop and cleaned it out once and is now ready to begin the second time, which will be all the cultivation necessary until harvest time. He states that he has been drawing rations for sixty days, and he has certainly made good use of them, judging from the appearance of his plantation. He admits that he would require about a 1,000-pesos expenditure for him to complete his crop if the rations were stopped, and insists that he must have rations for six months longer to prevent the men who are now working his place from starving. In my opinion this man has sufficient stock to enable him to raise the 1,000 pesos necessary to complete his crop.

Very respectfully,

F. HAWES,
Lieutenant, Porto Rico, U. S. V.

He is drawing rations for 25 or 30 laborers and families.

April 12 the division inspector, Humacao, wrote:

I have the honor to return to the board of charities of Porto Rico the following applications for rations with the recommendation that no supplies be issued, for reasons hereafter enumerated:

The applications inclosed are numbered as follows: 5060, 5061-2-3-4-5-6-7-8, 5091-3-4, 5150-1, 6362, 6554.

All applicants, except 5612, live in or near the barrio of Guanabota, in the hills or mountains northwest of Yabucoa. I made a personal visit of inspection to about two-thirds of the applicants, seeing them, their lands, and their surroundings. The list of applicants was prepared by a Mr. Nicasio Ortiz, known as the comisario of the barrio of Guanabota. The local board of Yabucoa, who recommended all of the applicants, except three, whom Mr. Ortiz recommends, a member informed me, made no personal investigation of these cases, but apparently relied upon Mr. Ortiz. It was noticed that Mr. Ortiz selected the names of men near his own place, although as far as might be judged from appearances every man in the hill country cultivating a few acres might with equal propriety have been listed. I visited and viewed about a half dozen different proprietors, whose owners are among the inclosed applicants, as well as many more who are not applicants, and found the same general conditions to obtain throughout not only the barrio of Guanabota but also Calaboza and adjacent country.

The amount of land claimed to be under cultivation was in many cases grossly exaggerated, and as a rule the rations asked for were for the men; usually members of the family living on the small plantations or farms.

The losses by the "tormenta" were generally grossly exaggerated. The country looks well and I have no doubt is in just about its normal condition, with the exception of the banana, which will begin to be ready for consumption in a short time, the plants being now well grown and apparently ready to fruit. It would be tedious to go over all the many cases investigated, therefore I will select one, as it is typical—5150.

He reports 39 acres of land under cultivation, chiefly in minor products; loss from hurricane, $250; required 4 laborers to work his farm.

I found that he had only 4 acres under cultivation—1 in rice, 1 in beans, and 2 in corn. Where his loss for $250 could have come I was at a loss to see. His house did not seem to be destroyed. He was not a proprietor in the sense of the circular letter of September 14, 1899. He was and is a small farmer, managing to raise a bare subsistence for his family with a minimum of work, Others had the same amount under cultivation, varying the proportion of sweet potatoes, rice, corn, beans, malangas, and gautinas, and frequently an acre or more of bananas and sometimes a pig or two or a chicken.

The sweet potatoes are just being harvested and upon them the people depend almost entirely. They are easily raised and a sure crop.

I saw every indication of laziness and no indication of starvation. Work can be had in the sugar plantations in the valleys, and is taken advantage of by the best element of the mountain dwellers.

While the district is very poor, there is no real suffering. An issue of rations would, in my opinion, be detrimental to the small incentive they now feel to work for any more than they need for the time being.

Should these supplies be granted the whole district might, with equal justice, be put on the food list.

I venture the statement that in many parts of the United States food is harder to procure and work is more difficult to get than in the barrio of Guanabota.

April 21 Captain Wheeler wrote from Aibonito as follows:

I return herewith certain applications for rations recommending that the rations be issued for eight weeks at the rate of 1 laborer to about 6 acres of land, and their families not to exceed 4 each. This will give each laborer 4 rations, or about 3,278 rations weekly, for the period recommended, provided you can give the rations asked for over and above the 10,000 allotted me. If you can not do so, then I recommend that no rations be issued to the land proprietors (for it is impossible to find out the deserving ones). They all tell the same story from the largest landholder to the smallest, and do not hesitate to deceive me.

You have sent me 152 applications for investigation. They ask rations for 800 men and their families (an average of one laborer to every 1¾ acres of land) for periods running from twelve to forty-two weeks, or on an average of 20 weeks, which would require about 6,400 rations. I am satisfied that I am doing as well as can be done under the circumstances, and request that I be permitted to continue as I have been doing. If I am to feed the landowners, then I must have more rations.

If the local board of charities does what is right there will be very little suffering.

April 14 this board issued the following circular letter:

Regarding the plan of distributing food to the planters, this board had in view the following points:

First. To feed the farm laborers and their families.

Second. To keep them on the farms and thus prevent an exodus to the towns, with the consequent added misery, expense, threatened epidemics, and death.

Third. To get the food widely distributed in remote places which could hardly be reached except through the assistance of the coffee planters.

Fourth. To keep the peons at work and restore the farms which must be their future source of livelihood.

Fifth. The financial status of the planters cuts very little figure in the matter. Many of these who have means have already cleared up their farms and now may have no occasion to employ their laborers further. Ordinarily these would fall back upon the fruits of the country for subsistence, but as the bananas and plantains have not yet matured there is a dearth of the ordinary supplies, and these people must be fed or suffering and death from starvation will follow.

This board proposes to use the local boards of charities to distribute food to the chronic poor, sick, and infirm. They will draw their rations from the nearest depots on formal requisitions, invoice and receipt, and will forward a weekly report of distribution to this board.

Issue to planters will continue as now, as long as, in the judgment of the division inspector, the same may be necessary, taking into consideration the points above set forth.

This board is anxious to stop issues at the earliest practicable moment, but it is more anxious that no one shall starve to death.

That the doctrine that charity begins at home has a foothold in Porto Rico is illustrated by the following:

I have the honor to acknowledge receipt of communications from the board of charities, and to proffer to do all that in my power lies to relieve my neighbor.

The board allows me a certain amount of provisions for the sustenance of peons working on my farm, but the time came when the contract expired and the issue of food was stopped. My farm is the only thing I have to depend on for a living, and I would highly appreciate 100 pounds of food weekly to save my property from absolute destruction. This I could take from the 5,000 pounds assigned to the chronic poor. I would also state that the amount of material devoted to the poor, etc., should be increased, as a great many paupers from other districts crowd the town in demand of assistance.

The following case, in which the board took special interest, is narrated to show that the best intentions are often misunderstood:

Early in April Mr. Jaime Annexy, of Utuado, made application for provisions under the needy planters plan of application, which took the usual course, was approved by all references, and especially indorsed by General Stone, who stated that Mr. Annexy had been particularly helpful to him during the invasion of the island, and was entitled to special considerations.

The agreements were made out and mailed to Mr. Annexy for signature, but were never received back. Doubtless they lie in some post-office in Porto Rico this moment. Of course Mr. Annexy never got the requested food, as set forth in the following letter:

UTUADO, P. R., *May 15, 1900.*

Sr. Dn. ANDRES CROSAS,
President Board of Charities Porto Rico, San Juan, P. R.

MY DISTINGUISHED FRIEND: I have read of your appointment as president of the board of charities and congratulate you. Please direct that orders be given to have provisions issued me, as the distribution of supplies has hitherto been so done as to give irritation to some.

Don Jaime Iglesias and his applications have been pending for the past five months. My contracts were returned signed about ten days ago.

Very respectfully,

JAIME ANNEKY.

Mr. Iglesias, above referred to, whom also General Stone recommended, had signed his agreement several months before and drawn food on it.

The following correspondence shows another phase of planters relief:

In compliance with the orders of the board of charities of San Juan, we respectfully submit the following:

We had a farm consisting of 162 cuerdas, and having 125 cuerdas of said farm planted with coffee which was destroyed by the hurricane last August, and not having the ready money in hand with which to repair said damage, we made application to the board of charities at San Juan for rations for 20 laborers. The board responded and gave us rations for only 5 laborers, which is not nearly sufficient. The first week we accepted and kept 175 pounds of rations, but it was greatly insufficient.

We would be pleased if you would investigate this matter, sending a commission to our farm to fully investigate the matter, and would be pleased if you will transmit the report of said commission to the board of charities for their consideration.

[First indorsement.]

Respectfully forwarded to the president of the board of charities, San Juan, P. R. If this statement is true, as I am told it is, I would have recommended rations for more than 20 laborers. I request that my indorsement on this application may be sent me, as I find it is not in my office; it is possible that a mistake has been made in this case.

[Second indorsement.]

Respectfully returned. Ration order was issued on within referred to application in accordance with the following recommendation:

"Respectfully returned to the president of the board of charities, San Juan, P. R. Approved for 5 laborers for twelve weeks."

[Third indorsement.]

Respectfully returned. Approved for 25 laborers. A mistake was made in this case.

The following report submitted by Private Furey, Company M, Eleventh Infantry, temporarily in charge of the subdepot at Aguas Buenas, gives an interesting statement of the condition of planters in that district:

AGUAS BUENAS, P. R., *May 29, 1900.*

COMMANDING OFFICER, *San Juan, P. R.*

SIR: I have the honor to submit the following report in regard to applicants for relief as distressed proprietors:

Application No. 2720.

Mr. Gervaso de la Vega, barrio of Bairoa, has 22½ acres of land, 7 acres in coffee, 2 acres in bananas, etc. Requires 5 laborers to work his farm; their family numbers 19 persons. I believe this applicant is in need of relief.

Application No. 5972.

Mr. Manuel Revera, barrio of Mulitas. This applicant has sold his plantation, therefore he does not need relief.

Application No. 8868.

Mr. Pedro Gonzalez, barrio of Jayuyes, has 30 acres of land, 3 acres in coffee, 3 acres in bananas, etc. Requires 8 laborers to work his farm; their families number 24 persons. I believe this applicant is in need of relief.

Application No. 9862.

Mr. Juan Diaz Latorre, barrio of Mulitas, has 107½ acres of land, 40 acres in coffee, 25 acres in bananas, etc., 4 acres in potatoes. Requires 25 laborers to work his farm; their families number 76 persons. I believe that this applicant is in need of relief.

Application No. 8753.

Mr. José Dolores Diaz, barrio of Cajuitas, has 7½ acres of land, 3 acres in coffee, 2 acres in bananas, beans, etc. Requires 4 laborers to work his farm; their families number 12 persons. I believe this applicant could work his farm without relief.

Application No. 8715.

Mr. Antoleni Rodriquez, barrio of Cajuitas, has 25½ acres of land, 5 acres in coffee, 5 acres in bananas, 2 acres in corn, rice, etc. Requires 6 laborers to work his farm; their families number 24 persons. I believe that this applicant is in need of relief.

Application No. 8749.

Mr. Juan Ramos, barrio of Cajuitas, has 977 acres of land, 4 acres in coffee, 8 acres in bananas, 18 acres in potatoes, rice, and minor products. Requires 8 laborers to work his farm; their families number 63 persons. I believe that this applicant is in need of relief.

Application No. 7583.

José Gracía, barrio of Cajuitas, has 5 acres of land in coffee, bananas, etc. Requires 3 laborers to work his farm; their families number 22 persons. I believe this applicant could work his farm without relief.

Application No. 9137.

Mr. Lorenzo Rodriquez, barrio of Jayuyes, has 35 acres of land, 7 acres in coffee, 4 acres in bananas, etc. Requires 5 laborers to work his farm. Their families number 20 persons. I believe that this applicant is in need of relief.

Application No. 5366.

Mr. Manuel Colon, barrio of Juan Asensio, has 122½ acres of land, 29 acres in coffee, bananas, corn, etc. Requires 4 laborers to work his farm. Their families number 31 persons. I believe that this applicant is in need of relief.

Application No. 6805.

Mr. Santiago Medna, barrio of Jayuyes, has 16 acres of land, 4 acres in coffee, 2½ acres in bananas, etc. Requires 5 laborers to work his farm. Their families number 28 persons. I believe this applicant is in need of relief.

Application No. 6307.

Mr. Juan Hernandez Aponte, barrio of Sonadova, has 14 acres of land, 3 acres in coffee, 2 acres in bananas, 1 acre in potatoes, etc. Requires 5 laborers to work his farm. Their families number 12 persons. I believe this applicant is in need of relief.

Very respectfully,

PRIVATE FUREY,
Company M, Eleventh Infantry, in charge temporarily.

May 29 this office issued the following circular:

The following letter is issued for your information and guidence. Please make two issues to planters in June, and continue those to municipal boards of charities for chronic poor and infirm until the supplies on hand are exhausted, which will be about the middle of July.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, May 28, 1900.

Hon. CHARLES H. ALLEN,
Governor of Porto Rico, San Juan, P. R.

SIR: Referring to our conversation this morning respecting the discontinuance of food issues to planters and proceeding in accordance with your advice to discontinue such issues, a course which my own judgment approves, I have the honor to advise your excellency that I have to-day given orders forbidding all issues of food to planters after June 15, proximo, and that no more new names be added to those planters receiving subsistence supplies.

Very respectfully,

G. W. DAVIS,
Brigadier-General, Commanding.

The change from the military to the civil government caused some misunderstanding in the post-office as to the status of relief work, and as an unusual amount of correspondence was at that time being had with hundreds—indeed, thousands—of planters under the Government frank, an embargo was placed upon all letters in transit, and considerable delay, if not actual loss, resulted. The following letter illustrates the situation:

SIR: I have the honor to forward herewith four letters received from the post-office, Manati, and which have been erroneously rated up and held for postage by the postmaster at that place. I have called on the postmaster as to why the letters in question were held in spite of the general orders issued on the subject.

This office regrets the delay to the inclosed correspondence, and trusts that there be no repetition of the occurrence in the future.

June 28 the officer in charge of the Porto Rican relief addressed the following letter:

SAN JUAN, P. R., *June 26, 1900.*

The ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: Food issues to planters having ceased, I have the honor to recommend that the houses of planters be inspected to ascertain who, if any, have relief supplies remaining on hand. Should any be found, the names of the planters should be reported to the proper civil authorities for the necessary action.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., in Charge of Relief.

[First indorsement.]

Respectfully referred to the governor of Porto Rico, San Juan, P. R.

If the recommendations of Major Hoff are approved, I would recommend that instructions be given to the police to make investigation and find out whether any planters have not been issuing the rations donated to them for distribution. Reports received would indicate that such has been the case in some instances. If any rations are found, I would recommend that they be seized by the police and turned over to the boards of charity, and that any necessary punitive action be taken with respect to violation of contract obligations which may be disclosed by the investigation.

GEO. W. DAVIS,
Brigadier-General, Commanding.

[Second indorsement.]

Respectfully returned to Brig. Gen. Geo. W. Davis, commanding the Department of Porto Rico, with the advice that instructions given to the chief of insular police will result, it is hoped, in the apprehension of any persons guilty and deserving punishment.

By direction of the governor:

WILLIAM H. HUNT,
Secretary.

[Third indorsement.]

Respectfully returned to the officer in charge of the Porto Rican relief, San Juan, P. R., inviting attention to preceding indorsements.

By command of Brigadier-General Davis:

W. E. ALMY,
Acting Adjutant-General.

The results following the plan of planters' relief may, upon the whole, be regarded as having met the expectations of those in charge of the work.

It must be understood that at the time of its inception the labor market was utterly demoralized. The planters, especially in the coffee districts, had lost everything and were wholly unable to borrow money with which to resurrect their estates.

The efforts of the board of charities and local authorities to make

the able-bodied work for food were unavailing. There were no means in the insular treasury to employ labor on public works, and pauperization and demoralization of the poor classes, with the utter ruin of the coffee industry, were threatening.

Something had to be done, and there was nothing else the board could do but take the planter and the peon into partnership for their mutual benefit. In theory this plan would feed, house, and clothe the peon and his family, and, moreover, it would furnish him with a crop of food for future use.

It would reconstruct the farmer's buildings and recultivate his farms, upon the products of which his future and that of his farm hands depended.

From the standpoint of the board it would employ labor at the place where it belonged and prevent the concentration of paupers in the coast cities. It would bring the food to the people on the farms, often so inaccessibly located that any means of transportation at the command of this board would have been inadequate; and, finally, it would give work to the able-bodied men, whose pauperization would mean ruination.

It may be said that, all things considered, the plan has worked quite as well as expected. Porto Rican planters are no more to be depended upon than other men. To be sure, each of them signed an agreement to do certain things, which agreement was not generally kept, either in the letter or in the spirit. It doubtless would have been kept if it had been practicable to maintain a system of inspection, but the planters were too many and often too inaccessible for our men to inspect them, even if we knew their language and tricks, which we did not. We were forced to trust them, and the temptation to misapplication of food and evasion of agreement was too great for some to resist.

Many farms were cleared which otherwise would not have been. Many laborers were employed who under any circumstances would have had to be fed, and thousands of people were kept at home and alive.

All planters' applications, with the papers relating thereto, are on file in the office of the Porto Rican relief. A complete record is entered in the books of the office, from which the following statistics were compiled:

Report on applications received from planters from districts.

	Applications received.	Applications acted upon.	Acres under cultivation.	Approved and agreements signed.	Rations allowed per day.	Disapproved.	No reply to confidential letter.	No references.	Refused to sign or agreement not returned.
Adjuntas	692	540	29,300	300	9,750	33	49	56	102
Arroyo	33	8	924	5	489		2	1	
Guayama	9	4	840	2	280			2	
Salinas	1	1	30				1		
Patillas	151	144	1,878	12	12	2	10	50	70
Total	194	157	3,672	19	1,227	2	13	53	70
Aibonito	73	63	2,979	14	1,065	5	8	22	14
Barros	323	246	9,600	124	4,480	13	30	19	60
Barranquitas	53	43	1,767	19	796		7	8	9
Total	449	352	14,346	157	6,341	18	45	49	83

Report on applications received from planters from districts—Continued.

	Applications received.	Applications acted upon.	Acres under cultivation.	Approved and agreements signed.	Rations allowed per day.	Disapproved.	No reply to confidential letter.	No references.	Refused to sign or agreement not returned.
Aguadilla	91	76	1,724	4	150	6	25	9	32
Moca	171	30	1,442	.....	.....	1	3	8	18
Aguada	32	3	198	.....	.....	.....	1	1	1
Rincon	38	8	983	.....	.....	1	1	2	4
Isabela	62	10	257	.....	.....	4	1	1	4
Total	394	127	4,604	4	150	12	31	21	59
Arecibo	458	442	17,749	138	4,113	102	49	70	83
Utuado	1,055	935	40,519	531	16,609	68	56	84	196
Hatillo	96	76	1,632	12	175	12	2	1	49
Camuy	84	47	3,231	.....	.....	2	1	43	1
Quebradillas	69	68	1,079	2	65	3	.....	6	57
Total	1,762	1,568	64,210	683	20,962	187	108	204	386
Bayamon	479	460	6,259	226	4,628	18	98	28	90
Toa Baja	3	3	76	.....	.....	.....	3	.....	.....
Toa Alta	18	15	284	6	175	1	2	1	5
Naranjito	209	204	4,216	100	3,658	8	50	6	40
Dorado	13	13	306	5	328	.....	7	1	.....
Corozal	316	303	8,033	30	1,210	10	199	14	50
Comerio	192	192	6,479	81	3,905	3	77	6	25
Total	1,230	1,190	25,653	448	13,904	40	436	56	210
Caguas	76	40	2,134	19	1,067	.....	4	7	10
Gurabo	100	86	1,179	39	761	3	5	5	34
Aguas Buenas	155	148	5,049	54	2,328	12	27	14	41
San Lorenzo	61	61	2,229	44	745	1	2	3	11
Juncos	38	21	428	6	115	.....	4	8	9
Total	430	362	11,019	162	5,016	16	42	37	105
Cayey	109	74	6,068	35	1,505	10	4	4	21
Cidra	90	77	4,360	20	605	8	17	6	26
Total	199	151	10,428	55	2,110	18	21	10	47
Mayaguez	892	760	28,522	332	12,368	99	37	66	226
Cabo Rojo	131	113	3,729	13	675	18	7	50	25
Hormigueros	5	5	183	.....	.....	1	.....	.....	4
Las Marias	209	169	10,775	76	2,875	11	11	7	64
Maricao	99	68	6,092	23	1,708	8	10	8	19
Añasco	413	293	7,389	130	2,858	23	23	21	96
Total	1,749	1,408	56,690	574	20,484	160	88	152	434
Manati	668	570	12,982	190	4,641	158	75	48	99
Morovis	354	345	8,752	109	3,334	117	41	39	39
Ciales	576	527	17,828	242	9,262	110	46	57	72
Vega Baja	166	163	5,223	56	1,257	65	9	17	16
Vega Alta	59	55	1,211	15	385	7	3	2	28
Barceloneta	119	119	3,014	57	1,984	22	10	15	15
Total	1,942	1,779	49,010	669	20,863	479	184	178	269
Fajardo	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rio Grande	46	28	1,145	16	800	1	.....	2	9
Luquillo	1	1	520	.....	.....	.....	.....	1	.....
Ceiba	1	1	80	1	15	.....	.....	.....	.....
Total	48	30	1,745	17	815	1	.....	3	9
Humacao	2	2	31	.....	.....	1	.....	1	.....
Yabucoa	60	55	889	1	20	37	11	2	4
Naguabo	1	1	.....	.....	.....	.....	.....	1	.....
Piedras	43	40	2,341	.....	.....	11	11	12	6
Maunabo	54	54	1,333	6	254	10	6	1	31
Total	160	152	4,594	7	274	59	28	17	41
Yauco	219	180	10,981	5	120	4	14	11	146
Guayanilla	76	46	2,203	8	678	1	5	2	30
Total	295	226	13,184	13	798	5	19	13	176

Report on applications received from planters from districts—Continued.

	Applications received.	Applications acted upon.	Acres under cultivation.	Approved and agreements signed.	Rations allowed per day.	Disapproved.	No reply to confidential letter.	No references.	Refused to sign or agreement not returned.
Lares	336	270	12,590	119	5,530	44	18	38	51
San Sebastain	303	249	11,531	75	2,832	56	7	8	103
Total	639	519	24,121	194	8,362	100	25	46	154
Ponce	170	165	17,926	13	1,435	7	40	41	64
Juana Diaz	342	301	22,978	21	3,411	7	81	29	163
Santa Ysabel	1	1	30	1	100				
Penuelas	154	142	4,709	5	110	6	17	9	105
Coamo	154	107	8,168	8	470	9	15	14	61
Total	821	716	53,811	48	5,526	29	153	93	393
San Juan	3	3	85			2		1	
Rio Piedras	13	12	469	3	85			3	6
Carolina	35	21	442	3	95	2	2	8	6
Loiza	6	2	66					2	
Trujillo Alto	5	4	92	2	65				2
Total	62	42	1,154	8	245	4	2	14	14
San German	261	203	5,661	18	402	18	11	128	28
Sabana Grande	214	165	5,315	27	1,049	15	4	39	80
Lajas	31	22	1,581					16	6
Total	506	390	12,557	45	1,451	33	15	183	114

RECAPITULATION.

Adjuntas	692	540	29,300	300	9,750	33	49	56	102
Arroyo	194	157	3,672	19	1,227	2	13	53	70
Aibonito	449	352	14,346	157	6,341	18	45	49	83
Aguadilla	394	127	4,604	4	150	12	31	21	59
Arecibo	1,762	1,568	64,210	683	20,962	187	108	204	386
Bayamon	1,230	1,190	25,653	448	13,904	40	436	56	210
Caguas	430	362	11,019	162	5,016	16	42	37	105
Cayey	199	151	10,428	55	2,110	18	21	10	47
Fajardo	48	30	1,745	17	815	1		3	9
Guanica	295	226	13,184	13	798	5	19	13	176
Humacao	160	152	4,594	7	274	59	28	17	41
Lares	639	519	24,121	194	8,362	100	25	46	154
Mayaguez	1,749	1,408	56,690	574	20,484	160	88	152	434
Manati	1,942	1,779	49,010	669	20,863	479	184	178	269
Ponce	821	716	53,811	48	5,526	29	153	93	393
San Juan	62	42	1,154	8	245	4	2	14	14
San German	506	390	12,557	45	1,451	33	15	183	114
Total	11,572	9,709	380,098	3,403	118,278	1,196	1,259	1,185	2,666

Number of applications acted upon	9,709
Applications received too late to be acted upon	1,863
Total received	11,572

HOSPITALS IN THEIR RELATION TO RELIEF.

Hospitals in Porto Rico, have with scarcely an exception, been such in name only. Each municipality is supposed to support at least one. It usually consists of a small frame building, divided into two, three, or four rooms, as the size permits. Of furnishings it may be said that there are none, and of medical and surgical supplies, they are nonexistant. Food and care are not more than sufficient to meet the simplest needs. It is needless to say that sanitary and hygienic measures are conspicuous by their total absence.

The care of the sick, largely increased in number as a consequence of the hurricane, was of course a most important part of the general

work of relief under the board of charities. The existing conditions made this a problem most difficult to solve satisfactorily. With a view to ascertaining definitely the status of the island's hospital accommodations, and as a basis for any future allotments of funds appropriated for their care, the following circular letter was sent from the adjutant-general's office in October:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., October 25, 1899.

COMMANDING OFFICER AND DIVISION INSPECTOR,
——— ———.

SIR: The department commander requests that you will furnish the following information:

In which of your municipalities are there hospitals? ———.

Please describe the conditions of each, as follows:

1. (*a*) Size: ———. (*b*) Character: ———. (*c*) Location: ———. (*d*) Condition of building: ———.
2. Outbuildings: ———.
3. Furniture and appliances: ———.
4. Supplies: ———.
5. State, in order of importance, repairs needed, and submit estimate of cost of material and labor. ———.
6. Give list of furniture and bedding needed. ———.
7. What is the present, average, and annual occupancy? ———.
8. What official is in charge of the hospital? ———.
9. How many nurses and other attendants are there? ———.
10. How is the hospital supplied with food and medicine? ———.
11. How can $500 be most effectively spent in improving the hospital? Give rough estimate. ———.
12. Recommendations: ———.

The replies were almost unanimous in their description of the hospitals, as totally unfit for their purpose, both as regards accommodation and facilities.

The following are a few communications in reply to the above, and others of later date apropos to the subject. They are inserted to give an idea of the general state of these institutions throughout the island. There were exceptions, but their number was insignificant.

POST OF LARES, P. R., *October 31, 1899.*

ADJUTANT-GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: Referring to your letter of October 25, I have the honor to inform you that the municipalities of both Lares and San Sabastian, in the division of Lares, have hospitals.

The reply to interrogatories in reference to the San Sabastian hospital is inclosed herewith, and that for the Lares hospital is as follows:

1. (*a*) Size: 30 by 50 feet. (*b*) Character: Frame, corrugated-iron roof. (*c*) Location: Somewhat isolated, on a high hill to west of town. (*d*) Condition of building: In bad repair; half unroofed by hurricane and only temporarily repaired.
2. Outbuildings: None. Privy vault adjoining kitchen in rear part of building.
3. Furniture and appliances: Twenty-five cot frames, 8 without covers; 1 bench, 5 chambers, and a few dishes.
4. Supplies: None.
5. State, in order of importance, repairs needed, and submit estimate of cost of material and labor. A masonry privy vault and drain, to be flushed with rain water from eaves spout, $75; repairs to roof and outer walls, $100.
6. Give list of furniture and bedding needed. Ten covers for cot frames, 10 chairs, 6 small tables, 1 commode, 2 bedpans, 1 bath tub, tableware and kitchen utensils, 6 wash basins, 10 water buckets, 6 dozen bedsheets, 20 blankets, 25 nightshirts.
7. What is present, average, and annual occupancy? 14, 18, and 250. Capacity, 25 beds.
8. What official is in charge? Dr. Asenjo, municipal physician.
9. How many nurses and other attendants. One male and 1 female nurse and 1 male attendant.

A STREET IN AGUADILLA.

10. How is the hospital supplied with food and medicines? Relief supplies solely.
11. How can $500 be most effectively spent in improving the hospital? For above-named repairs, furniture, and bedding, and in providing a water tank or cistern with necessary gutter and spout to catch rain water; estimated cost of latter, $75.
12. Recommendations: The present privy vault is simply a pit in the ground, without outlet except seepage, underneath the rear end of building, and of an unknown number of years standing. Improved sanitary arrangements seems to be the first consideration.

Very respectfully,

HARRY R. LEE,
Captain, Eleventh U. S. Infantry, Division Inspector.

CAYEY, P. R., *December 14, 1899.*

The ADJUTANT.

SIR: I have the honor to report the condition of the building used for a hospital at Salinas, P. R., in the district of Cayey, in accordance with orders issued December 5, 1899.

The building is an old, weather-beaten, wooden structure, about 12 feet square, badly roofed, without doors, windows, and floor that deserve the name. No kitchen nor utensils of any kind. No beds, cots, nor any furnishings whatever. Most unsanitary and vile.

Four patients were found on the floor, suffering from anæmia and starvation.

Fifteen centavos daily is the munificent sum expended by the council for the expenses of these four victims. * * *

Very respectfully.

H. A. EBERLE,
Acting Assistant Surgeon, U. S. A.

AIBONITO, P. R., *November 10, 1899.*

COMMANDING OFFICER,
Post of Aibonito, P. R.

SIR: I have the honor to submit the following report in regard to inspection of the public hospital at Aibonito, P. R.:

There is no permanent hospital, and the hospital itself, which is only a temporary affair, is a building 24 feet long by 21 feet wide, divided by a partition in the center, and one large room in the rear, which is used as a kitchen; the location is good, but building is foul and dirty and very poorly adapted for the purpose used, and in need of very extensive repairs to put it in a habitable condition.

The outbuilding, which is used for a water-closet, was in a dirty condition, and very odoriferous.

Furniture consisted of one large table, a few broken chairs, and cots.

A small quantity of supplies and medicines on hand.

At present there are only 6 patients in hospital.

One practicante in charge and one nurse on duty.

Food and medicines supplied by municipal authorities and relief committee.

I would respectfully recommend that another building be obtained and fitted throughout.

Very respectfully,

COMPTON WILSON,
Acting Assistant Surgeon, U. S. A., Post Surgeon.

SAN SEBASTIAN, *December 21, 1899.*

Captain LEE, *Lares:*

I visited the hospital to-day and found it in very bad condition. There are 13 patients—8 men and 5 women. They have one bunk and were sleeping on the floor without any covering. I have given them all the bean bags that I can spare to use as covering and bedding. Dr. Meguel Cancio, in charge of the hospital, only visits them two or three times a month. They scarcely have any clothing, and as we have none on hand can not supply them. It seems necessary to supply them with clothing soon as possible. They get only one meal a day, which is composed of beans, rice, and codfish.

MICHAEL GELSBURG,
Sergeant in Charge of District.

As elsewhere stated, large amounts of medicines were distributed throughout the island. These were transmitted through the several post surgeons to such municipal physicians and hospitals as, after investigation, were found to need them. Such food and clothing as came to hand, suitable for the purpose, was also reserved for this branch of the work. Further than this, and the engaging of physicians for certain districts where absolutely necessary, the board could not go in the general administration of this department of relief. But in one case where there was an immense increase in sick, and an absolute inability of the municipality to cope with the situation, it became necessary for the board to establish a temporary provisional hospital. This was at Ponce, where the hurricane had spent its force and where the waters inundated the whole city. The civil hospitals had been rendered entirely unserviceable. This extensive, thickly populated section was in a fair way to originate and spread broadcast disease, which at such a time could not have been successfully controlled. For the sake of the island as a whole the situation had to be met, and at once.

On August 25 the following telegram was sent to the surgeon, Ponce:

What have you done about emergency hospital for citizens? Organize such a hospital on site of old convalescent camp and take charge of it. Will send food and medicine for sick to replace what you may use from stock on hand. Send bills for milk here. Hire Moret at $100 per month.

HOFF, *President.*

The preliminary report of the surgeon in charge gave a history of its organization and an account of the difficulties met with. It was as follows:

POST HOSPITAL,
Ponce, P. R., September 13, 1899.

CHIEF SURGEON DEPARTMENT OF PORTO RICO,
San Juan, P. R.

(Through military channels.)

SIR: I have the honor to report that on the 26th of August, 1899, the surgeon of the post was notified by the post commander that the general commanding the department had ordered the establishment of a field provisional hospital for the Porto Rican sick who could not be admitted to the hospitals in the city.

The same day the order was transmitted by the chief surgeon, who further authorized the use of such necessary articles as were in the possession of the military hospital and as president of the board of charities such needful expenditure of money for native attendants as was deemed absolutely necessary. A force of 6 Hospital Corps men and 1 steward was ordered to report for duty in its construction and maintenance. The work was straightway begun, and Dr. Moret of this city was called to the position of attending physician, at $100 per month. The commanding officer of the post authorized the quartermaster to furnish the needful material and labor for the construction of the field hospital. All this material save a few tents was at the Playa de Ponce, and hardly had 20 wall tents been completed when a violent rainstorm of three days' duration completely stopped the work and forbade the fording of the river between the hospital and the playa. Difficulty in hauling material and the great distance from the store of tents and lumber caused the delay which followed. Meanwhile no little difficulty was found in caring for sick who were besieging for admittance. In the midst of rain and mud the corps of the military hospital and the efficient corps of native attendants worked faithfully and briskly to relieve all who applied. Wall tents were temporarily pitched and all care taken to prevent exposure to the storm. The result is shown in the fact that no illness occurred from those three days' of bad weather. Meanwhile a corps of native attendants had been carefully selected, who have since proved excellent and intelligent workers. They are paid 35 cents per day, gold. The hospital at present is composed of four large wards of 3 hospital tents each and each holding 24 beds. 20 wall tents of 2 beds each, 1 administration tent for an officer, 2 Sibley tents for stores, a tent for bathing, a wooden building for a latrine, and one for a kitchen, and a tent dining room. All tents are floored with level flooring and raised from the ground to allow of free drainage and ventilation. The

UNITED STATES ARMY PROVISIONAL HOSPITAL, PONCE.

leveling of the floors necessitated building upon joists on the side toward the sea, as the camp is on the hill.

The arrangement of the tents is seen on the accompanying diagram. The latrine is at a safe distance from the camp, but has no trench. It is floored well above the ground, and is divided into two parts by a partition, one side for women and children and the other side for men. There are placed under the privy seats seven galvanized-iron cans, which exactly fit the space, and which are removed at 7 a. m. and 4 p. m. daily, washed, and returned by the post scavenger, who takes them to the general dump for excreta fixed by the commanding officer of the post. During the day a disinfectant of crude carbolic acid is added every hour by the police party, and all persons found soiling the camp vicinity are immediately ejected from the hospital. The kitchen is placed at the greatest possible distance from the privy. It is a frame building fitted with an army range, and is in charge of a native cook, supervised by the steward. Up to this date it was impossible to feed these patients from any other source than the hospital, as no supplies would have been available even had the kitchen been built. To-day the kitchen has been completed, and as supplies have just arrived the sick will be fed from their own camp.

In addition to this fact, the abrupt change of these people from the habits of a lifetime in preparation of their own food to a completely new régime with excess of meat and greater variety, and different seasoning of dishes, caused a wide epidemic of diarrhea. Together with this there was a pronounced wave of dissatisfaction, and many began to leave the camp, saying they were comfortable but they could not eat American food. As I personally inspected the food at all times and as it was precisely the same as that served to our sick in the military hospital, I believed it to be due to a change in the diet. Pending the erection of a kitchen, which I immediately recommended be built, the cases of diarrhea have ceased and those now here have become more accustomed to the food. The explanation of this inaptitude for our cooking is believed to be also due to the fact that many eat little more than dried codfish and small number of bananas at any time, and that they were in a meat-starved condition when admitted. This is further borne out by the fact that fully three-fourths of the patients are suffering from grave anæmia due to this poor diet and together with this cause, bad sanitation, but chiefly from the bad quality of food which they are accustomed to.

A bath tent is established where patients are bathed before entering, when this is possible. Complete records according with military form are kept in the the administration tent. The wall tents are used for women and children.

They are equipped each with cots, double sheet, double blanket, pillow and pillowcase, a small folding table, and folding chairs. The wards are for males and are equipped with 24 beds. One ward is reserved for surgical cases and has a field operating and dressing table.

All absolutely necessary appointments of a field hospital are supplied from our storeroom; a property book contains the quantity, and for the protection of the property a guard of two by night and two by day is kept. Every convenience in the shape of carefully watched commodes, bedpans, etc., is furnished those who through feebleness can not reach the latrine. Running water is supplied from four faucets by pipes which have their head in the local reservoir above in the hill, and filtered ice water is furnished for drinking purposes.

Dr. Moret is in charge of the treatment of the patients and makes two visits daily to the camp, where he is accompanied by the surgeon and the steward in his rounds. The cases are many of them chronic, which have been admitted from the Tricoche Hospital, which, until its precarious condition due to the cyclone is bettered, can not accommodate its full capacity. The remainder are cases of all kinds, save infectious diseases, of which there are none. These chronic cases are among those most desperately in need. Pernicious anæmia, malarial cachexia, diseases of the heart, lungs, and kidneys are the prevalent diseases. The patients are most worthy of hospital attention, as the utter lack of food, proper cover, and medical care would have caused a large death rate among them had it not been for this hospital. The medicines and surgical dressings are supplied from the military hospital, but separate account is kept of their issue. There is by day a native cook and helper, 1 native female nurse, and 1 native male nurse, 2 Hospital Corps men on police and guard, 1 Hospital Corps man as clerk and assistant in surgical dressing and general duty; and by night 1 native female nurse, 1 native male nurse, and 1 hospital guard. A steward has general charge of the personnel under the direction of the surgeon of the post. The camp is excellently situated, open to the breezes of the sea, and commands a fine view of the surrounding country and city below. There are accommodations for 136 patients, and we have now about 100. The admissions are only by official application of the board of health, which investigates the worthiness of each one desiring a bed. Several have

been discharged cured. I am informed that many more desire admittance, so that the recently completed fourth ward will soon be filled.

Very respectfully,

BAILEY K. ASHFORD,
First Lieutenant and Assistant Surgeon, U. S. A., Surgeon.

The hospital was established to meet an acute condition, and it was expected that a few weeks at most would be sufficient to tide over the emergency, but the demands upon it were so pressing during the following six months that its maintenance during that period was necessary.

Efforts were made from time to time to close the hospital, for as soon as the acute stage had passed its original purpose had been answered. But it had gradually become filled with subacute and chronic cases, with which Ponce was at that time crowded, and as there was no civil institution with unoccupied space to which these could be transferred, there was nothing to do but keep it open. The knowledge of the existence of the provisional hospital had spread throughout the surrounding district, resulting in great demands being made upon it from near and far. People came, or were brought in, who were suffering from the prevailing chronic diseases, such as grave anæmia, dropsy from various causes, dysentery, etc. Many were in such a condition that a refusal to grant admission would have been a veritable death sentence. So it was that, notwithstanding the earnest desire of all concerned, the hospital was in active service for six months.

The following two telegrams from the surgeon, Ponce, are typical of the reports bearing on the closing of the institution:

PONCE, *November 11, 1899.*

CHIEF SURGEON, *San Juan:*

Native hospital fuller than ever. Cases worthy. City said to be without funds. Believed to be needed, and suggest continuance as long as funds can support it.

ASHFORD, *Surgeon.*

PONCE, *November 21, 1899.*

CHIEF SURGEON, *San Juan:*

Tricoche Hospital finished. All full, and corridors contain patients; 152 in relief hospital and still many sick in streets of Ponce. No taxes collected and council without money. Earnest appeal to continue from doctors here. What shall I do? Particulars follow in letter.

ASHFORD, *Surgeon.*

The following are the reports of the surgeon during January and February. They give an idea of the course pursued in closing, and the existing local conditions at that time:

POST HOSPITAL,
Ponce, P. R., January 20, 1900.

Col. J. VAN R. HOFF,
Chief Surgeon, Headquarters Department San Juan, Porto Rico.

SIR: I have the honor to report, in reference to the provisional hospital for natives at this place, as follows: There are about 100 inmates now. About 25 will be discharged in one or two days; of the remainder only about 25 or 30 are proper subjects for hospital treatment, being affected with chronic diarrhea or general anasarca mainly. All others are merely more or less helpless paupers; some with chronic ulcers requiring outdoor hospital treatment, others the subjects of chronic anæmia. All the public hospitals of this town are said to be crowded to their full capacity, and any new cases of acute illness have been taken into the provisional hospital, if homeless and without means. So that at present the condition seems to be that more hospital room must be provided for the poor in this town,

or else they will lack the ordinary demands of humanity. Then there are also the chronic, more or less helpless paupers, who will be discharged from the provisional hospital, and for whom there seems to be no room in the almshouse of this town. Many of these sick and paupers have come to Ponce from outlying towns, which towns, or districts, might be required to report their destitute and sick, if unable to care for them, and local treatment or subsistence furnished. A further report will be rendered as soon as possible concerning the condition herein mentioned.

Very respectfully, your obedient servant,

B. L. TEN EYCK,
Captain and Assistant Surgeon, U. S. A.

POST HOSPITAL,
Ponce, P. R., January 27, 1900.

CHIEF SURGEON,
Headquarters Department of Porto Rico, San Juan, P. R.

SIR: I have the honor to report that there are about 60 patients now in the provisional hospital for natives of this place. These are mostly sick of chronic diarrhea or chronic anæmia, with a few cases of recurrent fever, diagnosed as malarial by the surgeon in charge. On account of the insufficiency of the present public accommodation for the sick poor of this town and adjacent country, it seems impossible to close the provisional hospital at present; and with occasional accretion to the number of inmates from the acutely sick or from the helpless cases of chronic illness the present number of inmates will be very slowly reduced. There is a very apparent need of more room for the sick poor and the old and helpless poor of this town and its environs; i. e., an additional hospital and almshouse for permanent use to take the place of the present provisional hospital.

All cases discharged from said hospital have been inspected and their discharge approved by Dr. Moret, the attending physician. One discharged patient, 55 years of age, and with organic disease of the heart and brain quiescent stage, was found dead eight days after leaving the hospital; but was in good condition as to strength and nutrition when discharged.

Very respectfully, your obedient servant,

B. L. TEN EYCK,
Captain and Assistant Surgeon, U. S. A.

POST HOSPITAL,
Ponce, P. R., February 14, 1900.

CHIEF SURGEON,
Headquarters Department Porto Rico, San Juan, P. R.

SIR: I have the honor to report in relation to the provisional hospital at this place that there are 3 men and 1 woman in the hospital. One orphan child, aged about 8 years, without friends or relations, is in good health, but is kept in the hospital until otherwise provided for.

I recommend that an order be issued authorizing the closing of the hospital when, in the opinion of the surgeon in charge, no further need for it exists.

Very respectfully, your obedient servant,

B. L. TEN EYCK,
Captain and Assistant Surgeon, U. S. A.

The closing of this hospital occurred on February 26, 1900, just six months after its establishment was ordered.

POST HOSPITAL,
Ponce, P. R., February 26, 1900.

CHIEF SURGEON,
Headquarters Department Porto Rico, San Juan, P. R.

SIR: I have the honor to report that the provisional hospital for natives at this place was closed this afternoon by the taking down of the last three tents, which have been used for a very few patients, for whom no other provisions could be made, during the past few weeks.

Very respectfully, your obedient servant,

B. L. TEN EYCK,
Captain and Assistant Surgeon, U. S. A.

HOSPITAL STATISTICS.

There were 427 admissions to the hospital, exclusive of 30 children allowed to remain with their mothers who were patients. Of the cases treated 309 were male and 118 female.

The admissions and deaths for each month were as follows:

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Total.
Admissions	6	181	106	68	28	38	0	427
Deaths[a]	1	10	14	8	10	12	5	60

[a] Five of the children admitted also died.

The following is a classification of the causes of admission and deaths:

	Deaths.	Admissions.
Typhoid fever	0	2
Tuberculosis	6	8
Malarial fever	0	40
Rheumatism	1	18
Ulcers and superficial abscesses	0	31
Nutritive diseases	15	126
Venereal diseases	2	10
Genito-urinary diseases	0	7
Intestinal diseases	28	113
Glandular diseases	0	5
Nervous diseases	0	8
Respiratory diseases	3	5
Circulatory diseases	3	4
Injuries	0	2
Unclassified	1	24
Undiagnosed	1	24

The assistance rendered to hospitals and sick poor may be judged by the amounts of relief medicines distributed throughout the island. The following is the report of the medical supply officer who was in charge of this distribution:

MEDICAL SUPPLY DEPOT, U. S. A.,
San Juan, P. R., June 30, 1900.

CHIEF SURGEON,
Department of Porto Rico, San Juan, P. R.

SIR: I have the honor to state that the employees of this depot have been almost constantly employed in the receiving and shipping of relief medicines since last September. The following are the amounts shipped to the various towns:

	Pounds.		Pounds.
Adjuntas	6,420	Hato Grande	1,720
Aguadilla	7,350	Humacao	8,956
Aguas Buenas	156	Jayuya	23
Aibonito	7,322	Lares	5,412
Arecibo	7,263	Manati	8,300
Arroyo	105	Mayaguez	18,885
Barceloneta	26	Morovis	821
Barros	652	Naranjito	415
Bayamon	849	Ponce	13,269
Camuy	640	Quebradilla	352
Cayey	9,099	San German	6,060
Ciales	312	Toa Alta	60
Cialitos	22	Utuado	7,057
Comerio	70	Vieques	4,976
Corozal	764	Yabucoa	105
Culebra	1,525	Yauco	1,041
Dorado	269		
Guanica	110	Total	120,406

P. R. EGAN,
Major and Surgeon, U. S. A., Medical Supply Officer.

In March the following cablegram was sent by the military governor to the Secretary of War:

SAN JUAN, *March 30, 1900.*

SECRETARY OF WAR, *Washington:*

I ask allotment from special emergency fund $25,000 placed with assistant treasurer, New York, to credit Maj. P. R. Egan, surgeon, United States Army, disbursing officer, board of charities, and that I be authorized to expend that amount in purchase of medicines, clothing, payment expenses food distribution, services, and in aid of municipal hospitals that must be immediately closed unless aided.

DAVIS.

To which the following reply was received:

WASHINGTON, *April 1, 1900.*

DAVIS, *San Juan:*

Twenty-five thousand dollars[1] for expenditure, as requested, will be placed to credit Egan at New York from appropriation for refunding customs revenue; instructions mailed.

ROOT, *Secretary of War.*

Up to the present time the following allotments from this fund have been approved.

These are for repairs and furnishings of the respective hospitals:

Municipality of Yauco	$500.00
Municipality of Quebradilla	250.00
Municipality of Corozal	300.00

And to assist in the maintenance of hospitals at—

Aguadilla, for months of April and May	$60.00
Adjuntas, for April, May, and June	87.20

And for a newly established orphanage at—

Arecibo, for April, May, June, and July	$100.00

The Porto Rico Central Relief Committee, and the Contributions to Work of Relief.

It would be impossible to make adequate acknowledgment to the hundreds of contributors who so generously helped in the charitable work intrusted to this board. Certain it is that many here to-day owe their lives to this charity.

Appreciating the necessity for an organization in the United States to represent the relief work here, General Davis early addressed the Secretary of War, recommending the appointment of a central committee, which was approved, and the Central Porto Rico Relief Committee "was constituted, for the purpose of securing method and a common understanding among the various committees engaged in the collection of money and supplies for the work of relief, and preventing confusion and waste of effort."

I am indebted to Mr. William R. Corwine, the able secretary of the Porto Rico central relief committee, for the following résumé of the work of that committee, which, however, does not go into the infinite details, nor does it show the admirable manner in which the business affairs of the committee were conducted:

After General Henry returned to the United States from Porto Rico, in May, 1899, Mrs. Henry organized a society known as the Colonial Aid Society of the

[1] The total amount expended from this allotment to November 20, 1900, when the account was closed, was $7,090.34. An account of these disbursements has been rendered by Maj. P. R. Egan, surgeon, United States Army, who was the disbursing officer of the board of charities.

United States. The object of this organization was to cooperate with the Woman's Aid Society of Porto Rico, with headquarters at San Juan, of which Mrs. Henry had been the president, and in which office she was succeeded by Mrs. John Van Rensselaer Hoff, the wife of Colonel Hoff, of the United States Army, chief surgeon of the Department of Porto Rico.

The officers of the Colonial Aid Society of the United States were: Mrs. Guy V. Henry, president; Miss Anna Rhodes, vice-president; Mrs. John Janvier Le Duc, secretary, and Mrs. Horace See, treasurer.

An advisory board was named, consisting of Gen. Guy V. Henry, United States Army; the Rev. Dr. George R. Van De Water, rector of St. Andrew's Church, and the Rev. Dr. William Hayes Ward, editor of the Independent.

At the request of several gentlemen Mrs. Henry made a personal appeal to the members of the Merchants' Association on behalf of the Colonial Aid Society of the United States and of the Woman's Aid Society of Porto Rico. These gentlemen were members of the Merchants' Association of New York, and the appeal was made at a meeting held at the rooms of that association Tuesday, July 18.

Hon. William L. Strong, ex-mayor of the city of New York, presided at the meeting.

The result of this meeting was the appointment of a committee of the Merchants' Association to aid Mrs. Henry in raising funds and clothing for the organization which she represented. That committee was composed of Duncan D. Chaplin, chairman; S. Cristy Mead, treasurer; William R. Corwine, secretary; John C. Eames, and H. D. Lockwood.

The committee issued a statement which was sent to the members of the Merchants' Association and of the press. The result of this was the receipt of about $1,100 in money and a considerable amount of raw material to be made up into clothing, donated by merchants in lieu of money.

Shortly afterwards, or on the 8th of August, the hurricane of 1899, which has passed into history, devastated a large portion of the island of Porto Rico. The Secretary of War of the United States, in his efforts to ameliorate the suffering caused by the hurricane, telegraphed William R. Corwine, of the Merchants' Association, asking him if that body would cooperate with the War Department in raising money, food, clothing, and medical supplies.

The Merchants' Association immediately formed a committee for this purpose. The Hon. Theo. Roosevelt, governor of the State of New York, accepted the chairmanship of that committee. The other officers of the committee were: S. Cristy Mead, treasurer; William R. Corwine, assistant secretary of the Merchants' Association, secretary.

The members of the committee in addition to those mentioned were:

Hon. Cornelius N. Bliss, ex-Secretary of the Interior.
John Claflin, president H. B. Claflin Company.
A. D. Julliard, of A. D. Julliard Company.
Alvah Trowbridge, president North American Trust Company.
Robert C. Ogden, resident partner in New York of John Wanamaker.
U. D. Eddy, of Flint, Eddy & Co.
A. S. Frissell, president Fifth Avenue Bank.
Frederick T. Adams, of the Stock Exchange House of F. T. Adams & Co.
Hon. Thomas L. James, president Lincoln National Bank.
George C. Clarke, of Tefft, Weoller & Co.
George F. Vietor, of Vietor & Archelis.
Edward P. Hatch, of Lord & Taylor.
Edward B. Page, of Faulkner, Page & Co.
Charles H. Webb, of J. H. Dunham & Co.
Thomas A. McIntyre, of the Produce Exchange House of McIntyre & Wardwell.
Marchall H. Clyde, of the Clyde Steamship Company.
James B. Dill, of the law firm of Dill, Boemisler & Baldwin, counsel for the Merchants' Association.
Frank Squier, of Perkins Goodwin Company.
John C. Eames, manager H. B. Claflin Company.
Duncan G. Chaplin, of the Hocanum Association.
J. Howard Sweetser, of Sweetser, Pembrook Company.
James McCreery, of James McCreery Company.
Nathan Strauss, of R. H. Macy & Co.
H. D. Lockwood, of the Merchants' Association staff.
Col. Daniel Appleton, colonel of the Seventh Regiment N. G. S. N. Y.
Louis Stern, of Stern Bros.

BOYS' CHARITY SCHOOL, SANTURCE.

The appeal of this committee read as follows:

To the People of the City of New York:

More than 1,000,000 people of Porto Rico are dependent upon the charity of this country. They have been in a moment reduced to complete destitution; their homes have been swept away; their business prostrated; their occupations stopped. Thousands of families are without roofs, without clothing, and without food. They have no means of sustenance or protection. They can not help themselves; and we appeal to the people of the great city of New York to lead in giving them the relief so urgently needed.

The calamity which has befallen the people of Porto Rico is one of the greatest disasters of modern times, and many thousands will die from exposure, disease, and famine unless the generosity of our countrymen comes promptly and largely to their relief.

By request of the Secretary of War the Merchants' Association has undertaken this work, and we appeal to all patriotic citizens to show to the suffering people of our new possessions that the extent of our flag over their territory is to be of immediate material as well as moral benefit to them.

Large amounts of money are necessary to purchase food, clothing, and medical supplies immediately, which will be distributed under supervision of the United States Army officers.

Checks may be made payable to S. C. Mead, treasurer Poto Rican relief committee, care of the Merchants' Association of New York, 246 Broadway, New York City.

Meanwhile William R. Corwine, of the Merchants' Association, used the funds that were in the hands of the Merchants' Association committee for the benefit of the Colonial Aid Society in buying clothing and medicines. He immediately commenced shipping, and having used up the money in hand anticipated what might be received in response to the appeal of the committee, of which Governor Roosevelt was chairman, by buying freely, shipments to be sent by each transport and by the steamers of the New York and Porto Rico Steamship Company, and by the Red D Line, which had volunteered to carry a certain amount of cargo for the island free of all freight charges.

His purchases were confined to medicines, such as quinine and other drugs useful in such an emergency, and to general lines of clothing, such as women's calico wraps and undershirts and men's undershirts and trousers.

The appeal which was prepared by the committee, of which Governor Roosevelt was chairman, was mailed to 12,000 merchants in the city of New York, and was sent generally to the press throughout the State. Almost immediately responses were received in the shape of money and clothing.

Within a very short time about $20,000 in cash had been received, of which Mr. Corwine had expended about $15,000 for supplies of the character above named, all of which had been shipped.

Meanwhile, the Secretary of War had appointed a committee known as the Central Porto Rico Relief Committee. This appointment was made on the 19th of August. The committee consisted of the Hon. Cornelius N. Bliss, ex-Secretary of the Interior; Brig. Gen. Guy V. Henry, United States Army, formerly governor-general of the Department of Porto Rico; the Right Rev. James H. Blenk, S. M., D. D., Bishop of Porto Rico, then temporarily sojourning in the United States; the Hon. Warner Van Norden, President National Bank of North America; William R. Corwine, of the Merchants' Association of New York; the mayor of Boston, or such representative as he might choose to designate; the mayor of New York, or such representative as he might choose to designate; the mayor of Philadelphia, or such representative as he might choose to designate, and the mayor of Baltimore, or such representative as he might choose to designate.

In his letter of appointment, the Secretary of War said:

"I have determined to request the following gentlemen to act as a Central Porto Rican Relief Committee, to which I shall request all local committees to report, and which may perform the very necessary duty of coordinating the procurement and furnishing of supplies, concentrating the money raised into one fund, to regulate its expenditure so that the supplies furnished may conform to the requirements in character and quantity and confusion of effort be avoided.

"The work of distribution in Porto Rico will continue under the direction of the Quartermaster's Department of the Army, which will furnish or procure all the vessels required. Between these agents of distribution and transportation on the one hand and the great number of local committees, none of which knows what the others are doing, on the other hand, the new committee is expected to stand.

"It is not expected that, beyond forming the original organization, a very great amount of time and labor will be required of the members of the committee, the work being, in the main, of the character to be transacted by a secretary and clerical force, with the possible assistance of a small executive committee."

This committee organized by electing the Hon. Cornelius N. Bliss chairman, the Hon. Warner Van Norden treasurer, and William R. Corwine secretary.

At the meeting at which the organization was perfected, the mayor of New York City was represented by the Hon. Randolph Gugenheimer, president of the council of the city of New York, then acting mayor of the city; the mayor of Baltimore, the Hon. William T. Malster, was present in person; the mayor of Boston did not reply to the letter sent him asking him to be present, and the mayor of Philadelphia had written declining the appointment on the committee.

Others present at the meeting were, besides Mr. Bliss, Mr. Van Norden, and Mr. Corwine, Brig. Gen. Guy V. Henry and the Right Rev. James H. Blenk.

The National Bank of North America was designated as the depository of the funds.

At this meeting Mr. William R. Corwine asked for and obtained the permission of the committee to retain the balance of the fund which had been collected by the Merchants' Association committee, to be placed to the credit of the committee originally formed to cooperate with Mrs. Henry and Mrs. Hoff, to the end that the charitable work which had been inaugurated might be carried on so far as the funds in hand would allow the committee to aid the Woman's Aid Society of Porto Rico.

The Central Porto Rican Relief Committee thereupon issued an appeal to the public at large. This appeal was headed "An Appeal to the People of the United States." It read as follows:

"The greatest distress prevails in the island of Porto Rico. Tens of thousands of the inhabitants are without food or clothing. Their only hope of keeping off famine and starvation lies in the patriotism, generosity, and broad charity of the American people. That the Porto Ricans have the strongest claims on us for aid in the awful affliction is beyond questioning. They gave themselves into our keeping; they came to us with words and deeds of loyalty and with love for the American flag and all it stands for.

"Help has already been most generously extended to the sufferers, but it must be continued until new crops can be raised on the lands devastated by the hurricane. It is estimated by the governor-general of the island that $1,500,000 will be required to procure for the destitute the mere necessaries of life during the period of prostration.

"The committee feel confident that this appeal will meet with a prompt and adequate response from the whole nation.

"The object of the committee is to carry on the work of purchasing and shipping supplies to Porto Rico, but it is not in any way to supersede or to take the place of any committees previously formed in any cities for the purpose of collecting money or supplies for this laudable cause.

"It is expected that through this committee local committees may be informed of just what is needed in Porto Rico. It will, if required, make purchases, using the funds which it has on hand and such other funds as the committees in various cities or the officers of such cities may have collected or may collect to aid in this charity, giving due credit to each official, person, or committee from whom money or supplies may be received.

"Contributions can be sent to mayors or executive officers of the committees in their cities and towns, and can then be transmitted to the National Bank of North America, 25 Nassau street, New York City, from which place disbursements will be made by the committee."

The committee designated the Merchants' Association of New York, No. 346 Broadway, as the place where all detailed information could be supplied and where goods would be received and shipped.

To save as much expense as possible, the secretary of the committee, Mr. William R. Corwine, on behalf of the Merchants' Association, offered his own services and the services of the staff of the association to do all the detail work without charge. This offer was accepted.

Copies of this appeal were mailed to all the committees which had been organized in the different cities of the United States, were sent to the press, to all banks through the country, and to all the churches of the various leading denominations, except churches of the Roman Catholic faith, to which Bishop Blenk directly called the attention of the authorities in the leading dioceses.

Purchases were made by this committee of the food and clothing for which General Davis made requisition upon the Secretary of War, so far as the funds in hand enabled the committee to make these purchases. A large amount of rice, beans, fish, and medical supplies were bought and shipped weekly on the Government transports. All the details of this work was attended to by the secretary of

the committee, who was aided loyally by the various employees of the Merchants' Association.

Meanwhile the employees of the association received and forwarded a very large number of boxes, barrels, and packages of all descriptions. which were sent in from charitable organizations connected with churches or other societies throughout the entire United States, and looked after large shipments of raw material which were donated by firms and factories in lieu of actual money subscriptions.

The purchases more than kept pace with the fund, until in December further shipments were discontinued, the last shipment being a large amount of medical supplies sent on requisition of Colonel Hoff, surgeon in charge of the department at Porto Rico, who had been acting as the president of the board of charities of the island through all this trouble.

After the sending of supplies had been discontinued, there was a small balance left. This was swelled by further contributions, which kept coming in from churches and charitable organizations as well as from individuals.

The amount finally became so large that it was decided by the committee, after consultation with the Secretary of War, that it would be wise to send Mr. William R. Corwine, secretary of the committee, to Porto Rico, so that he might make a personal investigation of the conditions there and ascertain how this balance could best be expended for the benefit of those who suffered directly from the hurricane or for the children of those who were killed by the hurricane and the floods which accompanied it, it being the opinion of the committee, as well as of the Secretary of War, that such children would be the proper beneficiaries of the fund.

Mr. Corwine volunteered to go as soon as he was able to leave his business. The directors of the merchants' association had their regular meeting in April and gave their consent for Mr. Corwine to make the trip. He left New York on the 16th of April and went over the island as thoroughly as the time at his disposal would allow him to do.

He returned on the 10th of May and made a report to the committee, the original of which was sent to the Secretary of War, and which in due course was approved by that official. In this report Mr. Corwine gave the details of his trip and investigation. In his conclusion he says:

"In view of the conditions as set forth above, it seems to me that the best possible use that can be made of the balance now in the hands of the committee would be to erect and equip with 200 beds an orphan asylum in the city of Ponce, under the jurisdiction of the municipal authorities in that city, to be operated by a commission to be composed of the council of that city, president of the board of health, the chief officers and the officers of the auxiliary branch in Ponce of the Woman's Aid Society of Porto Rico and the Porto Rican Benevolent Society; that the plans submitted by Lieut. H. E. Eames, Eleventh Infantry, chief engineer officer of the city of Ponce, be adopted as the basis of the erection and equipment of such asylum; that the details of the work be left with Right Rev. James H. Blenk, bishop of Porto Rico, who is a member of the central Porto Rican relief committee, resident of the island of Porto Rico; that no bills for the work or equipment contracted for in Porto Rico be paid except upon his indorsement; that the total to be expended for this work should not exceed $6,000; that of the balance, there should be set aside small amounts to be donated to some of the general hospitals on the island, such as Bishop Blenk may be willing to appoint as being worthy recipients of such amounts, and that the main portion of the balance be retained for the support and maintenance of the orphan asylum for as long a period of time as the money will allow it to be supported, in connection with such annual appropriation as may be made by the city of Ponce for this work."

Upon receipt of notification of the organization of the Porto Rican central relief committee, the following letter was addressed:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 13, 1899.

COMMANDING GENERAL, DEPARTMENT OF PORTO RICO,
San Juan, P. R.

SIR: In order that the general committee in the United States, appointed by the Secretary of War at your request to receive such contributions as may be made in the United States for the relief of the sufferers from the recent hurricane in Porto Rico, may be enabled to appreciate the food requirements here, I have the honor to submit the following estimate:

Probable indigents requiring food, 250,000; probable length of time before food crop can be raised, fifteen weeks. Allowing two weeks for contingencies, we will have to feed 250,000 people one hundred and twenty days.

Based upon this estimate of time and numbers, and allowing 1 pound of food per day for each individual, it will be seen that 30,000,000 pounds of food will be required for the relief of hunger in Porto Rico.

The simplest, most effective, and acceptable ration will consist of beans, rice, and codfish or bacon, in proportion of 3 pounds each of beans and rice and 1 pound of codfish or bacon per week.

On this basis the supply for each week will consist of—

	Pounds.
Rice	750,000
Beans	750,000
Codfish or bacon	250,000
Total	1,750,000

The island has been divided into 75 depots of distribution and 17 districts as indicated by the inclosed order, exclusive of the general depot at San Juan, giving an average requirement for each district of 12½ tons per week. to transport which will require 10 carts, 20 men, and 40 oxen; a total of 700 carts, 1,400 men, and 2,800 oxen.

Estimated cost for seventeen weeks:	
12,750,000 pounds rice, at 5 cents per pound	$637,500
12,750,000 pounds beans, at 3 cents per pound	382,500
4,350,000 pounds codfish, at 8 cents per pound	340,000
Transportation:	
700 carts for seventeen weeks, at $10 per week	119,000
Sundries	10,000
	1,489,000

Bacon would cost one-third more.

No estimate has been made for medicines, personal service, clothing, etc., which will doubtless amount to at least $51,000, making a grand total of $1,549,000.

It will be seen by the foregoing that Porto Rico wants from your committee food in its simplest and least expensive form. If the committee can obtain from the charitably inclined of our country one million and a half dollars, and it is expended judiciously and in accordance with your request, it is believed that it will be unnecessary for anyone to die of starvation here. Supplies other than food will of course be acceptable, but their purchase should not be allowed to impair the ration fund of one and a half millions, which should be applied to this purpose and this alone. It is hoped that the number of indigent has been overestimated, and that in any event the resumption of labor on public works on the island will enable the people to purchase their own food, but I can not believe that with the almost total destruction of crops of all kinds that we can hope for a much less demand upon our charitable people than above set forth.

Many families are homeless and clotheless, but houses in this country may be and a large proportion are constructed from the bark of the nearest palm tree, while clothes, though desirable, are not the sine qua non to existence which food is.

If our people give more than the above-mentioned sum, it can be applied to many worthy uses, but until that sum is absolutely in hand I beg that any money received will be spent for food only, to be purchased through the commissary department, and that no purchase be made except upon your request.

I might add that strenuous orders have been issued directing that no able-bodied man shall receive food unless he rendered an equivalent in work and that all misuse of said supplies will be punished by fine or imprisonment. The whole object of the board is to feed the starving, and at the same time prevent them from being pauperized.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A.,
President of Board.

It will be remembered that this board had no knowledge of any source of food supply for the famished here beyond the charitable offerings of the people at home; hence its anxiety that all resources be husbanded and applied to the purchase of food.

On September 12 the board received the following letter:

NEW YORK, *September 12, 1899.*

Maj. JOHN VAN RENSSELAER HOFF,
Surgeon, U. S. A., President Board of Charities,
San Juan, P. R.

DEAR SIR: Your letter of September 2, acknowledging receipt of shipment made by the Porto Rican relief committee of the merchants' association consigned to Porto Rico, by the steamship *Evelyn*, came duly to hand this morning.

I received to-day a telegram from the Adjutant-General at Washington asking me to hereafter consign all goods to the Board of Charities of San Juan, of which you are chairman. His suggestion will be adopted.

I would write you more at length concerning what is being done here to aid in this matter, but the results in the shape of shipments will show you how far we are accomplishing our desires in this matter. From these results you will see what the interest of all of us in this work must be, and therefore I trust no further excuse for lack of detailed information will be necessary.

Assuring you of our desire to heartily cooperate, I am,

Very truly, yours,

WM. R. CORWINE,
The Central Porto Rican Relief Committee.

Which was answered as follows:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, September 20, 1899.

WILLIAM R. CORWINE, Esq.,
Secretary Porto Rican Relief Committee, New York City.

MY DEAR SIR: I have your favor of the 12th instant, which reached me this a. m. The board of charities of Porto Rico congratulates itself that the central committee at home has so active and enthusiastic an executive officer, and one who so thoroughly understands the people we are all trying to help.

General Davis has set forth in various communications the vital requirements of the situation, which will enable your committee to appreciate the extent of the problem before us.

The greatest difficulty we labor under is to get at the exact truth. We have to do with a strange people, speaking an unknown tongue, whose education, business, moral standards, everything, differ from our own. They have for generations been held in the hollow of the Spanish hand and taught to look to their master for all things. Unity of action, independence of thought, initiative in every direction have been discouraged for all these years, until as a result there exists in Porto Rico to-day a race of naturally bright, but generally uneducated and unscrupulous, children, who look to the Government as a child to its father, and who hesitate not to deceive that favor may follow.

This people have literally obeyed the scriptural teaching to take no heed of the morrow, nor do they lay up for themselves treasures upon earth (probably because they know too well that neighboring thieves will break through and steal). Thus any catastrophe finds them wholly unprepared, and if that catastrophe reaches the bounteous food supply that nature furnishes, they are lost.

The hurricane destroyed the food, which cannot be reproduced under three months, and during this time we must subsist a large percentage of the population.

A consolidated report of this board for the week ending the 9th, which accompanies General Davis's letter to you, will furnish you with the idea upon which this board is working.

It is hoped that, by more rigid inspections and an awakening of the better classes to a realizing sense of the fact that they must help themselves and this board by seeing that no unworthy one is fed, we will be able to somewhat reduce the large percentage of indigency now reported. But this is by no means certain.

General Davis has told you what we need, to which I can add nothing. But that you may know something of the methods of administration of this board, I send you various orders, circulars, blanks, etc., which are an epitome of its history.

At this moment we are making a sort of partnership agreement with the planters and peons which we hope will prove valuable to all three, but unfortunately its value largely depends upon the man behind the machete. In any event, however, it will enlist the planters on our side.

I trust you were not startled by the board's requisition for medicines. Demands for medicines are numerous and varied, and if we can meet them at not too great cost it is an effort in the direction of humanity.

The clothing you have sent and that supplied by the Woman's Aid Society of San Juan helps to cover the nakedness which is habitually too apparent. The beans, rice, and codfish flow in weekly; so, all things considered, Porto Rico might be in a worse plight, but not much worse.

Change of government, change of markets, the going out of the old, the coming in of the new, means but the same old story of the survival of the fittest. The hurricane was a dreadful blow, but it will hasten the cure of a disease so radical that the deepest cutting, even to the vitals, alone would suffice.

Trusting that our people will be willing to bear the added burdens that Porto Rico's hurricane has thrust upon them, and that your committee will be entirely successful in its undertaking, I remain,

Very truly, yours,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

By reference to the foregoing resumé it will be observed that large demands were made upon the central committee for medical supplies. Nothing daunted by the unfamiliar order, the matter was at once undertaken and the much-needed supplies were soon en route.

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., October 13, 1899.

WILLIAM R. CORWINE, Esq.,
Secretary Porto Rican Relief Committee, New York City.

SIR: Much obliged for your letter of the 3d instant and glad to hear that the medicines, etc., are en route. You will observe from the inclosed consolidated weekly report that there is a considerable amount of sickness for which medicines are demanded of the board of charities. These people have really made no adequate provisions for the care of their sick anywhere on the island. Their so-called municipal hospitals are barns, without furniture or anything else to conduce either to recovery or to easy death.

The truth of the matter is, we expect too much of Porto Ricans. They are a hundred years behind the times, and with the best coaching it will take them fifty years to catch up.

Your kind words about the Army are appreciated. We try to do what comes to our hand to the best of our ability. The motive is always right and the results must answer for themselves.

Am sorry our people have lost active interest in Porto Rican relief, though not surprised. It would be a national disgrace if any considerable number of people here should die of starvation, and that is exactly what would happen if a constant stream of food failed to flow in from home. The chronic poverty here is distressing and would be fatal in almost any other climate. Nature has been kind to the individual and not to the race. The population is not a survival of the fittest, but of all kinds, so that the vast majority of Porto Ricans, descendants of unnumbered generations of semistarved ancestors, live in abject poverty, ignorance, and degradation. We can not let them starve; so we must feed and clothe them now, educate them later, and gradually bring them to an appreciation of the meaning and blessings of being a part of our nation. There is here a fallow field in which to plant the seeds of knowledge, but we must not expect a crop before we do the planting.

The work of your committee is a real charity and deserving of thorough support and success.

Very truly, yours,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

The medical supplies having arrived, were duly acknowledged as follows:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., October 30, 1899.

WILLIAM R. CORWINE, Esq.,
Secretary Central Porto Rico Relief Committee,
New York City.

DEAR SIR: Your favors of the 17th and 18th instant reached me in due course of mail. Of the medical supplies invoiced, the board has received up to the present 88 boxes, 1 cask, and 9 bales, which represent about one half of the total number. The remainder, I presume, will come later. Thank you very much for these supplies, which came in excellent condition, as do all goods shipped under your auspices. This fact has been remarked from the beginning, and there is no legitimate reason why anything sent from the merchants' association should fail to reach its destination, wind, weather, and other uncontrollable causes permitting.

As I wrote you in my last, relief efforts are being more and more directed toward the mountain districts—the coffee region.

Our scheme of combination with the planters and peons, of which I wrote you, is developing to an unexpected extent. I thought that not over 500 planters would desire to accept the assistance of this board, but already we have over 2,000 applications, embracing requests for an aggregate of 200,000 rations per day.

All applications are being carefully investigated before the agreement is consummated, and the consensus of opinion is that good will result from this plan. I send you the consolidated weekly report for the 21st instant. No material change is observed from the reports of previous weeks. Reports which reach the superior board of health (of which I am also president) indicate that there is an increasing amount of dysentery, especially in the mountain districts, and a marked

increase in the normal death rate, which is 26.6 per thousand. By reference to current reports of the board of charities it will be observed that the present rate is double the average rate.

The unexpected arrival of the *Burnside*, with 100 tons, and *Resolute*, with 360 tons, has filled our storehouse and enabled us to meet the probable demands of November. In fact, General Davis cabled the Secretary of War asking that no more relief supplies be sent until specifically requested, and it is quite probable that very little more will be needed for December and none after the first of the year. Porto Rico can not sufficiently thank you and your committee for the kindly efforts in their behalf, the result of which will become more apparent to them and the world at large when the history of this great charitable effort comes to be written.

We are greatly shocked to hear of the death of General Henry. His shattered frame had so long and so often resisted the attacks of the life destroyer that we of the Army had come to believe that he bore a charmed life and that only age and wear would gradually lay him low, but such was not to be. He was a soldier, and, as General Davis said, "a patriot and lover of Porto Rico."

Trusting that you are well, I remain,

Very truly, yours,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

November 13 the president of the board addressed Mr. Corwine as follows:

DEAR SIR: I return you herewith the landing certificate for 1,460 bags of rice received via S. S. *Philadelphia*, duly signed and certified, and will send details of receipt of the shipment of medicines as soon as report reaches me from the officer in charge of the medical supply depot. I am just in from an inspecting tour in the mountains, where I found considerable serious illness, quite an epidemic of dysentery, but, thank God, no one dead of acute starvation. In the work we have had to do here I have recognized but one paramount rule, viz, "No one shall starve to death," and I believe we have been successful in keeping up to it. Economic considerations were to the board of charities secondary, and though we have striven mightily to fit them into their proper relation, after all, the main question was human life. That an appalling loss of life has not occurred in Porto Rico is due solely to the fact that the United States has presented the people here with 20,000,000 pounds of food.

I have had many plans suggested to relieve the economic situation here, all of which involved the obtaining of money, apparently from some supernatural source by supernatural means, but I have yet to meet a man thoroughly familiar with the situation who failed to appreciate that imported food was now absolutely necessary to life in Porto Rico, and that until the above-referred-to supernatural agency should get to work, food would have to be distributed gratuitously.

The practical fact is that the money lenders have locked up the money and will not lend it on any security now offering; but there is just as much money here as there ever was and the security is just as good, only the relation of Porto Rico to the United States is undetermined, and until this is settled capital will remain timid. Nobody ever failed to be able to borrow when he could furnish satisfactory security and was willing to pay enough for it; and that is just as true here as anywhere, but the security here depends upon legislation—and for that reason more than any other the hurricane was most inopportune. We must wait for legislation and look with suspicion upon any scheme which proposes a panacea to cure evils which all business experience has proved can be cured in but one way—the restoration of confidence. In a year from now Porto Rico will be in the midst of a great boom; people will then forget that famine and death ever impended over this fair island. But you and I will remember that the United States beans, rice, and codfish a year before saved thousands of lives, and that no one of the numberless proposed patent remedies helped even a little bit.

I don't often wander so far afield in my business communications, but I trust you will pardon this digression and attribute it to levity on the part of one who has had a great task to perform, and now, almost seeing its fruition, is putting off his garments of care and taking his fling at the doctrinaires who are ever ready to pull down the house but never prepared to put up a better one in its place.

Trusting you are well, I remain,

Very truly, yours,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

Unfortunately, the above-expressed hope of an early completion of the work of relief was not realized, and it yet dragged on for several weary months.

As the originally estimated period of relief work was drawing to a close, on the 19th of December, the secretary of the central committee wrote:

> We are discussing now the advisability of putting our surplus funds in the building of an asylum or hospital somewhere on the island where one or both will do the most good. The suggestion for this came originally from General Davis, with whom I communicated as to the best use which could be made of surplus funds.

Before the organization of the central committee many cities formed committees of their own, and money and material was sent direct from them for the relief of Porto Rico.

August 27 the U. S. gunboat *Panther* brought a load of material from Philadelphia at a most opportune moment and, what is more, distributed it from port to port under great difficulties. The season was a tumultuous one, the water very rough, and landing often impossible. The rain came in torrents, the air was filled with rumors of approaching hurricanes, and the stevedores refused to work. What wonder that Captain Ward and his gallant crew were beset with difficulties; but he conquered them all and, with little loss of food, which was compensated for by celerity of delivery, brought life and comfort from the City of Brotherly Love to Borinquen. Then came the U. S. transport *Wright* with the Baltimore and Washington contributions, under charge of Mr. Leser, followed by the *Resolute*, under the command of the gallant Commander Kelley, U. S. N. Besides those the *Evelyn*, *Philadelphia*, *Hildeur*, and two schooners (consigned to De Ford & Co.) arrived with relief supplies.

As set forth in the foregoing statement of accounts, this board received over $16,000 in cash from various sources, chiefly in the United States.

The Maritime Association of the Port of New York was the most liberal contributor, through its chairman, Mr. Harry T. Knowlton.

The Porto Rico Steamship Company and the Red D Line not only contributed largely, but their ships were placed at our disposal for the free transportation of relief supplies.

The cable companies all volunteered their lines for the free transmission of messages.

The French railroad and those to Santurce and Bayamon helped in the battle against starvation.

England assisted with the contribution of £100 from Messrs. Starert, Legomala & Co., of Manchester. Nor was Porto Rico unrepresented, a few of her citizens contributing liberally to help their suffering fellows.

A detailed list of contributors, so far as it was possible to obtain the names of such, is a part of this report.

The following is a summary of the receipts and disbursements of the "contribution fund," Porto Rico relief:

Receipts from subscriptions and sales of supplies and sacks	$16,336.82
Disbursements, as per vouchers	12,734.07
Balance	3,602.75
Deposited with De Ford & Co	178.19
Deposited with American Colonial Ban	3,424.56

THE WOMAN'S AID SOCIETY OF PORTO RICO.

This society, organized by Mrs. Henry during the incumbency of General Henry as military governor, had been meeting and overcoming immense difficulties during the six months preceding the hurricane. Its members had organized for charity where organization for such a purpose was unknown. They had entered a field which was entirely new—a field which was so broad in its possibilities and so obviously in need of attention in every direction that any undertaking by them with their extremely limited means seemed predestined to failure. Such a large proportion of the population was in need of assistance of one kind or another, and so few of those who knew the people and their language understood the methods of the society, that the usual obstacles met in organizing for any new work were greatly increased. But by unceasing and strenuous efforts these few American ladies surmounted every obstacle and long before August were carrying out a system of aid to worthy women in San Juan, which was a veritable godsend to hundreds and the like of which was unknown to the Porto Ricans. Their self-imposed labor was continually being added to as the news of the good produced spread, and at the time of the hurricane it seemed that to add to their responsibilities was a physical impossibility. But the same tireless energy which carried them through the difficulties of the beginning enabled them to successfully meet the additional duties that naturally fell to their lot as a consequence of the storm of August.

The relations of the society to the board of charities were most intimate throughout the period of relief work. Their method of relief is fully described in the first annual report of the society, a most interesting and valuable document. It was one by which they supervised the making and distribution of clothing.

The board received an abundance of clothing from the United States and also a large amount of material for such. This latter was invariably sent to the Woman's Aid Society, which supervised its manufacture into clothing and subsequent distribution.

Urgent requests for clothes of all kinds were being constantly received, both from division inspectors and the civil authorities. They were frequently referred to the Woman's Aid Society, which had perforce been transformed from a local to an insular charitable organization.

The following cases show the variety of sources of requests and the courses pursued:

On November 14 the division inspector, Aibonito, forwarded a request by some Porto Ricans for clothing, with the following indorsement:

> Respectfully forwarded to the board of charities, San Juan, P. R. Would suggest that cloth be sent here and these people could make it up for their children.

This was referred to the aid society and returned indorsed as follows:

> WOMAN'S AID SOCIETY OF SAN JUAN,
> *San Juan, November 19, 1899.*
>
> Respectfully returned to the board of charities of Porto Rico.
> This society has no material to furnish, but will send 100 garments at the earliest possible date.
>
> LAVINIA D. HOFF,
> *President Woman's Aid Society of Porto Rico.*

In December the local board of charities at Aguas Buenas requested clothing. After due investigation the letter was referred to the aid

society and returned with the information that "the within-requested clothing will be furnished at the earliest possible moment."

In the same month the division inspector, Lares, forwarded a report of the noncommissioned officer at San Sebastian, stating that the 13 patients in the municipal hospital were in a deplorable condition and urgently requesting that clothing and bedding be sent.

The following indorsements show the course pursued:

[First indorsement.]

BOARD OF CHARITIES OF PORTO RICO,
San Juan, December 27, 1899.

Respectfully referred to the Woman's Aid Society, San Juan, there being no clothing or other like material in possession of the board of charities.

By direction of the board of charities of Porto Rico:

P. R. EGAN,
Secretary Board of Charities of Porto Rico.

[Second indorsement.]

Respectfully returned to the board of charities of Porto Rico.

The clothing and bedding, with the exception of cot covers, have been sent as requested.

LAVINIA D. HOFF,
President Woman's Aid Society of Porto Rico.

SAN JUAN, P. R., *January 5, 1900.*

That the work of the society was becoming widely known throughout the island is evidenced by the following letter from Morovis addresses to its president:

MOROVIS, P. R., *March 1, 1900.*

PRESIDENT OF THE WOMAN'S AID SOCIETY, *San Juan, P. R.*
(Through the board of charities of Porto Rico.)

MADAM: I have the honor to inform you that there is a great number of women and girls in my parish who will not go out of their respective houses because of the absolute want of clothing; consequently I hereby apply to you as president of said society for the necessary material to supply 14 or 20 persons in each barrio of this district. I will take charge of the distribution myself so that the work will be satisfactorily done.

I remain, madam, your obedient servant,

RAFAEL FUNTANE,
President Local Board of Charities.

NOTE.—The barrios are 12.

The letter followed the usual course, the indorsement of the aid society being as follows:

Respectfully returned to the Board of Charities of Porto Rico. Clothing has been sent as requested.

LAVINIA D. HOFF,
President Woman's Aid Society of Porto Rico.

These were but a few of the cases, and merely show the course pursued in this connection. They do not adequately serve to indicate the extent of the cooperation of the aid society with this board, nor the large amount and importance of its charity work. The society filled an important part in the completed scheme of organization for relief.

The board, of course, was pleased to be of any assistance to the society in its local work, and, on occasion, turned over to it, for use among the indigent, such available food or other material as was required.

The following letter was received in February:

SAN JUAN, P. R.

BOARD OF CHARITIES OF PORTO RICO.

GENTLEMEN: The Woman's Aid Society of Porto Rico desire to express to you their grateful appreciation of the generous assistance you have rendered to their work through all the months of this first year of the existence of their society. They hope you can realize how much good you have helped them to do in every way by the food, clothing, and materials you have supplied. They are specially grateful for your kind response to their appeal at Christmas, making it possible for them to give the poor people of San Juan such a memorable day. Hoping that the close connection between your work and ours will always enable us to keep your confidence, we are,

Most gratefully, yours,

Mrs. EVELYN E. WHIPPLE,
Secretary Woman's Aid Society of Porto Rico.

FEBRUARY 9, 1900.

To which reply was made as follows:

SAN JUAN, P. R., *February 13, 1900.*

SECRETARY OF THE WOMAN'S AID SOCIETY OF PORTO RICO,
San Juan, P. R.

MADAM: In acknowledging your kind letter of the 9th instant I am instructed by the board to express its highest appreciation of the assistance rendered it by your society. Through all these months of struggle to keep the bodies and souls of thousands of hungry, homeless, clotheless people together we could always rely upon the Woman's Aid to help effectively when help was most needed, and we have never called for assistance that has not been speedily given. Trusting that your admirable society may be able to continue indefinitely the excellent work done by it during its year of existence, I remain, with assurances of distinguished consideration.

By direction of the Board of Charities.

P. R. EGAN,
Secretary Board of Charities of Porto Rico.

Too much credit can not be given to the Woman's Aid Society of Porto Rico for the valuable aid rendered to those who were undertaking the relief of the hurricane sufferers. It must be remembered that such general work was entirely beyond the original intentions of the society, and that its local charity work was at any time a large undertaking, but had naturally greatly increased as a consequence of the storm.

LIST OF CONTRIBUTORS TO CONTRIBUTION FUND.

Aplin, A. L., Grand Rapids, Mich		$50.00
American Book Company, New York		250.00
Bitter, John, commissary sergeant, U. S. A., San Juan		5.00
Bolton, Bliss & Dallet (Red D Steamship Company), New York		1,000.00
Cruz, Eusebio Collago		2.40
Erlanger, Baron, London, England		1,000.00
Fathers of Redemption, San Juan		10.00
Groff, George G., San Juan		10.00
Headquarters Department, personnel:		
Gen. George W. Davis	$25.00	
Col. C. H. Heyl	20.00	
Maj. J. V. R. Hoff	25.00	
Maj. Jas. Buchanan	20.00	
Maj. Thomas Cruse	5.00	
Capt. G. Langhorn	15.00	
Lieut. James J. Hornbrook	10.00	
W. Reeves	5.00	
R. W. Hettenger	2.00	
Z. V. Spinoza	5.00	

Headquarters Department personnel—Continued.		
Hulio F. Anduz	$5.00	
J. E. Hinzman	5.00	
I. Da Costa Gomez	5.00	
F. W. Hawes	5.00	
Isaac Hamilton	5.00	
Edmund Brock	5.00	
W. H. Evans	5.00	
John Smith	5.00	
P. W. Burnhorn	4.00	
M. E. Hughes	5.00	
Leon Chapuis	3.00	
A. H. Hersey	5.00	
C. H. Gray	5.00	
H. F. Besosa	5.00	
E. R. West	2.00	
L. T. Zbinden	5.00	
Harold W. Cowper	5.00	
		$211.00
Joy, Lorenzo (from sale of contributed coffee)		3.00
Kneedler, William L., New York		25.00
Kurka, Frank		5.00
Light-house keepers, Brinckend (Eulalio Hernandez, Lorenzo Castro)		2.00
Ligomala, Stannert & Co., Manchester, England		495.00
Lodge of Regeneration, San Juan, P. R		15.00
Lyon & Healy		25.00
Maritime Exchange, The		8,311.50
Marxauch, Dr. Jose		60.00
Miller, Bull & Knowlton, New York and Porto Rico Steamship Company		500.00
Müller, Schall & Co		500.00
Navy, officers and enlisted men of, San Juan:		
Marine Guard, N. S	$8.20	
A. S. Snow	10.00	
L. C. Lucas	5.00	
C. W. Parks	5.00	
W. R. Gheradi	5.00	
F. W. F. Weiber	5.00	
F. A. Sawyer	5.00	
W. Y. O'Brien	3.00	
B. Frenkel	1.00	
S. Leroold	1.00	
Robert E. Lindsay	5.00	
A. Wilson	1.00	
N. Mitchel	.60	
John Ostman	1.00	
John Velsor	1.00	
S. Caprellman	1.00	
T. Firing	1.00	
William M. Jasobo	1.00	
Walter M. St. Elmo	2.50	
Crew of *U. S. S. Cæsar*	7.50	
		69.80
New York Produce Exchange		1,554.00
Pilots of San Juan:		
Antonio Rodriquez	$20.00	
Florentino Scotoliff	20.00	
Juan Santiago Escoboles	20.00	
Juan Garcia	20.00	
Vitelio Ramires y Gutienez	20.00	
	100.00	60.00
Porto Rico Central Relief Committee		500.00
Penitentiary, Porto Rico (prisoners):		
Raymon Herrera	$2.00	
Alverto Morales	2.00	
Jose Belmonte	2.00	
Jose M. Gali	1.50	
Jose Adomar	2.00	

Penitentiary, Porto Rico—Continued.

Eladio Mercado	$4.00
Ines Gonzalez	2.00
Raphael Vasquez	4.00
Tomas Diaz Torres	2.00
Benito Rojas	2.00
Nicolas de Tolenkins	2.00
Juan Hernandez Rivera	2.00
Francisco Lopez Ortiz	2.00
Juan Raphael Mercado	2.00
Jose Rodriquez Incognito	3.00
Jose Ramon Vargas	2.00
Antonio Lasalle	1.00
Venancio Adoma	2.00
Ramon Rivera Maldonado	2.00
Juan Cruz Melendez	2.00
Bermudo Tomey	2.00
Virgilio Maldonado	2.00
Sandalio Nieves	2.00
Jose Rodriquez Torres	2.00
Valentine Alisea	2.00
Remigio Alomar	2.00
Jose Viscarrondo	2.00
Juan Pagan	1.50
Franco Turino	1.50
Jose Lopez Incognito	2.00
Gil Arranzamendi	2.00
Juan del Valle Mojica	1.00
Jose Vincente Rivera	2.00
Ahafito Rivera Alvarez	2.00
Alejandro Osland	2.00
Genaro Garcia Perez	2.00
Antonio Sanchez Olizea	2.00
Juan Ferrer Pomales	2.00
Mateo Cubertier	1.00
Victorio Gomez	2.00
Damosa Carreras	1.00
Isaac Perez	2.00
Pedro Miguel Santiago	1.00
Jesus Marcano	1.00
Basilio Soltren	1.00
Marcos Serrano	2.00
Pedro Quinonez	.05
Jose Sonsa	1.00
Angel Bocachica	2.00
Ulncersleo Nieves	2.00
Juan Zaragoza Cruz	2.00
Juan Nicomedez Morales	1.00
Jose Hulian Mercado	3.00
Antonio Moler	4.00
Segundo Lopez Codero	1.00
Celestino Chavaria	2.00
Pedro Villegas	.50
Juan Mendez	1.00
Franco Perez Velez	2.00
Roque Passain	4.00
Franco Rivera Guchs	.50
Pedro Reveria	1.00
Jose Sepulveda Gonzaley	2.00
Ramon Acevedo	1.00
Tomas Acevido	1.00
Pedro Jose Calderon	2.00
Juan Garcia Maldito	1.00
Juan Caban Roman	3.00
Juan Torrez	2.00
Hginio Melendez	2.00
Placido Martinez	2.00
Franco Garcia Rivera	2.00

Penitentiary, Porto Rico—Continued.

Juan de la cruz, Amdijar	$2.00
Sandelio Rivera	.25
Naticidad Oyola	.50
Franco Luis Lugo	1.00
Edurdo Rojas	2.00
Antonio Nieves	3.00
Isidoro Oliveros	2.00
Isaias Aceverdo	2.00
Emilio Alvarez	2.00
Antonio Lessalle Budro	.50
Franco Ortegadel Valle	3.00
Juan Arroyo	.50
Justo Arroyo	.50
Estevan Torres	.50
Pedro Vargas	1.00
Rufino Medino	1.00
Esteban Garcia	.50
Pablo Velez	.50
Quintin Cato	.50
Franco Marcano	.50
Demetrio Sedeno	3.00
Marcelino Melendez	1.00
Angel Perez	2.00
Lucanio Moralez	1.00
Livorio Garcia Flores	.50
Juan Gunenez, Saco	.50
Felipe Martinez Maduro	.50
Limons y Ribe	1.00
Joaquin Valle y Tanfa	2.00
Felix Rodriquez	2.00
Pedro Benchampt	1.00
Genero Lopez	.50
Ramon de Leon	1.00
Cesaro Vasque	1.00
Geronimo Rijos	.50
Eluetrio Terrato	2.00
Juan Rodriquez	1.00
Juan Evangelista Carrero	.25
Julio Colon	.50
Pedro Rivero Crespo	3.00
Serafin Siera	.50
Raphael de Leon Vasquez	.50
Juan Diaz Garcia	2.25
Escolastico Colondres	.50
Juan Cuitro Prina	2.00
Valenton Castro	1.00
Eleminano Lugo	.25
Pedro Ruiz Noguera	1.00
Blas Martinza	1.00
Robustiano Gonzales	2.00
Jose Seda YcLedo	2.00
Franco Tigueroa	1.00
Pablo Trinidad Valadre	1.00
Juan A. Benet	.50
Jose Manuel Serano	.50
Jose Franco Serano	4.00
Juan Rivera Pilin	1.00
Rufino Giminez	.50
Jose Ortig Sanchez	2.00
Jose Rosado	3.00
Manuel Antonio Garcia	1.00
Lueis Oyala	2.00
Toribio Rivera	.25
Franco Lebron	2.00
Pedro Bhionet	.50
Trilon Landrom	1.00
Jose Antonio Dapena	1.00

Penitentiary, Porto Rico—Continued.		
Camilo Perez	$1.50	
Juan Montanez	1.50	
Manuel Sanchez Soto	1.00	
Jesus Prez	.50	
Eduardo Vega	2.00	
Manuel Crespo	.50	
Conception Melendez	2.00	
Eusebio Sanchez	.50	
Wenceslas Candebaria	.50	
Guillernio Garcia Nieves	.50	
Nicamor Amada Pern	.50	
Hilarco del Valle	2.00	
Elutario Pagan	1.00	
Isidoro Marqiez	1.00	
Manuel Sulsona	.50	
Jaime Rios	1.00	
Fernando Diaz	.25	
Jose Astorio Mojica	.25	
Jacinto Gonzalez	.25	
Fermin Lopez Negron	.25	
Eucarmacion Santiago	.25	
Vencente Sulsona	2.00	
Unknown	2.45	
	238.00	$142.80
Rivera, Dias		3.00
San Juan, P. R., citizens of		102.60
San Juan Railroad Company		500.00
Scott & Bownem		250.00
Society Los Amigos del Bien Publico		15.00
Taylor & Williams, Louisville, Ky		20.00
Unknown sources		55.00
Van Rensselaer, Rev. M		5.00
Wiltwyck Chapter, Daughters of the American Revolution (Phoebe E. Roosa, treasurer)		187.35
Young, L. E		2.00

CONCLUSIONS.

RELIEF WORK.

The experience of the year of free food distribution in Porto Rico confirms the views advanced in the very beginning of the work, *that such a form of relief is but the least of two evils and demoralizing*, even though surrounded by every possible safeguard. As stated in the opening chapter of this report, we had a condition to meet—the people were starving. There was no money and no way to get any; only food, and how much of that even we did not know. So we were forced to employ the sole means at hand to keep these people from starving to death.

I believe it is necessary to reiterate this fact that all may understand the exact position of this board.

With this means only at command, what has been accomplished?

The board has received and distributed over 32,000,000 pounds of food and thousands of articles of clothing. It has furnished medicines and sick comforts to every municipality. In a word, it has kept a hundred thousand people here alive who otherwise would have been dead.

This is the absolute measure of its accomplishment.

With this food the board has cleared and cultivated over one-fourth of all the coffee plantations in Porto Rico; it has built or repaired

numerous trails leading in every direction through the mountainous regions of the island; it has cleaned up the towns, rebuilt hundreds of houses, and it might have done even more but for the lack of the mere implements to put into the hands of the tens of thousands of laborers who were forced to work for their lives.

Such catastrophes as that of August 8, 1899, have not been uncommon in Porto Rico. The official records covering less than four hundred years give accounts of more than thirty hurricanes which have devastated the island, an average of one every twelve years.

This being the case, it seems right that I should succinctly state our conclusions as to the best method of relief under like conditions.

The work that had to be done after the last hurricane, named in the order of importance, was:

First. To reopen the roads and trails to render intercommunication possible.

Second. To rebuild the houses, by which, to the largest extent, is meant the simple bark shacks of the peons.

Third. To clean up and cultivate the farms.

Fourth. To reconstruct and build new public highways and buildings.

Immediately following such a catastrophe it may be assumed that for a short time, until matters readjust themselves, the distribution of some food will be absolutely necessary. The machinery devised by us for this work seemed entirely adequate, and no better was suggested. This consisted of the division of the island into a certain convenient number of so-called "relief divisions," which were in turn subdivided into districts corresponding to the municipalities, the size of the division being determined by convenience in transportation. A general supply depot was established at San Juan, a depot in each relief division, a subdepot in each municipality, and in certain cases even in barrios.

With us the military posts became the depots, but that is a mere question of convenience. Under a civil government the depot town would be designated, as would also the relief divisions, and the boundaries of the latter would be determined by accessibility to the depot.

Under the present law a board of charities is a part of the government of each municipality, and it has well-defined functions. These boards now know what is expected of them, and they should be made wholly responsible for the care of the chronic poor, sick, infirm, and, for the first moment, the "acute" indigent. They should receive the food from the depot and issue it.

These boards should be assisted by barrio committees of sufficient size so that each member would not be required to know the condition of more than twenty families.

A census of the needy should be taken at the earliest practicable moment, one copy of which should be sent to the board of charities of Porto Rico, which board would have general supervision of the whole work of relief, and the other copy would be retained by the local board and should be constantly revised.

A careful record of all receipts and issues should be kept, a strict accountability for the relief supplies demanded, and reports should be made weekly to the central board.

The details of the procurement and transportation of the supplies would ordinarily be merely those of a like commercial proposition (of the utmost importance indeed), to be met by the means at command

of all business communities, and which would usually be adequate: Food from New York, through some produce exchange firm. Steamship to Porto Rico; any of several lines. Distribution in the island, steamboat and sailing vessels along the coast, and ox carts to the interior, beyond which the municipality would have to meet the question of transportation.

In the meantime, possibly years in advance, plans and specifications for the repair of every road and the construction of new roads should be prepared, and bids for the work then at once invited. Plans for the repair or reconstruction of public buildings should also be prepared and contracts let.

Pari passu with these, the railroads and other undertakings of a semipublic character would be getting ready to employ labor. Merchants, farmers, and other private employers would be laying their plans for further employment of labor. Everywhere labor would be in demand, and where labor is all occupied there dwells prosperity.

But all this presupposes one thing—capital. There must be money to pay labor or the old story of "beans, rice, and codfish" will be told again.

Porto Rico is intrinsically valuable enough to discount the future. She could borrow with reasonable freedom and repay with scarcely an effort.

The money—but "that's another story."

Under the suggested plan four months would be the limit of public food distribution, even to the so-called poorhouse population; for these kindly people are very generous and freely share with their poorer neighbors even their last crust.

The relief work under the military authority in Porto Rico ceased July 15, 1900, in accordance with an order from the Secretary of War dated June 22. Its record is made, whether for good or for evil, but whatever may be the verdict of posterity, certain it is that those whose duty it was made to execute this unfamiliar and distasteful task have, from the highest to the lowest, devoted their every effort to its successful accomplishment. There is scarcely an officer or enlisted soldier in this entire command but who has given something of himself to this work, and all are entitled to the thanks of the authorities as well as the grateful appreciation of the people of Porto Rico whom they have served and saved.

I desire especially to express my acknowledgment of the admirable work done by the following named, to whom in more than a proportionate measure is due the success that has attended the work of famine relief in Porto Rico:

Col. William A. Rafferty, Fifth Cavalry.

Lieut. Col. C. C. C. Carr, Fifth Cavalry (now colonel Fourth Cavalry), both of whom were, in turn, division inspectors of relief, Mayaguez, and both were untiring in the work.

Maj. Thomas Cruse, Quartermaster's Department, who was in charge of the general relief supply depot, San Juan, and the distribution of supplies to the divisional depots. His work was untiring and invaluable.

Maj. P. R. Egan, Medical Department, United States Army, disbursing officer of relief, who purchased a large proportion of the nearly $25,000 worth of medicine used and repacked and distributed it all.

Maj. Eben Swift, Porto Rican Regiment Volunteer Infantry, sometime inspector of the division of Humacoa, Cayey, and Arroyo.

Capt. H. S. Bishop, Fifth Cavalry, inspector of relief at Manati, in whose division the largest amount of food was distributed, an impor-

tant result of which was that thousands of people were kept at or near their homes who otherwise would have flocked into the coast towns.

Capt. H. W. Wheeler, Fifth Cavalry, inspector at Aibonito, whose interest in the poor people of his division inspired their confidence and affection to an unusual degree.

Capt. H. R. Lee, Eleventh Infantry, inspector of Lares and afterwards of Aguadilla, whose intelligent handling of the situation in his jurisdiction was remarked by all who observed it.

First Lieut. J. L. Haines, Fifth Cavalry, who succeeded Captain Bishop as inspector, Manati, and who successfully closed up the work in that important division.

Dr. H. W. Cowper, acting assistant surgeon, the first secretary and disbursing officer of the board of charities, Porto Rico, who devoted himself to organizing the administration of the work of relief during its earliest and most trying period.

Sergt. Gotlieb Williams, Troop F, Fifth Cavalry, noncommissioned officer in charge of the division of Bayamon, where his work was most important and intelligent.

Corpl. Daniel G. Brose, Company I, Eleventh Infantry, who established the first subdepot—that at Hato Grande—and whose work and reports were of the highest order.

Mr. William Reeves, chief clerk of the chief surgeon's office, who took charge of and managed with great skill the enormous amount of office work connected with the department of planters' relief.

Messrs. J. W. Van Leenhoff, Angel Mattei, Carlos Batlle, and Felix Seijo, Porto Rico coffee planters, who were appointed honorary inspectors of relief in the most distressed districts and whose services were of great value.

And, finally, the work is especially indebted to the Woman's Aid Society of Porto Rico, San Juan, P. R., whose assistance in the making and distribution of thousands of articles of clothing for the naked all over the island and in a hundred other ways, was invaluable; and to the Porto Rican Central Relief Committee, and particularly its able and untiring secretary, William R. Corwine, Esq.

Respectfully submitted.

JOHN VAN R. HOFF,
Major, Surgeon United States Army,
Chief Surgeon Department of Porto Rico,
In Charge of Porto Rico Relief.

APPENDIX A.

PRELIMINARY REPORT OF THE BOARD OF CHARITIES OF PORTO RICO.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
OFFICE OF THE BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., September 25, 1899.

The MILITARY GOVERNOR OF PORTO RICO,
San Juan, P. R.

GENERAL: In compliance with verbal instructions from you, I have the honor to submit the following preliminary report of the relief work in Porto Rico intrusted to this board:

Cash received to date	$13,650.10
Expended	907.29
Balance on hand	12,742.81

PUERTA DE TIERRA, SAN JUAN.

SUPPLIES.

	Received.	Issued.	Remaining.
Provisions ..... tons..	5,041	3,061	1,980
Lumber ..... pieces ..	2,566	2,566	.....
Nails ..... kegs..	301	219	82
Iron roofing ..... rolls..	400	341	59

Indigent at date of last report, 252,750.

At 12 m. on August 7, 1899, the following message was received at the adjutant-general's office: "Hurricane signals 11 a. m., center east of Dominica." By that hour on the following day the island had been devastated by the tempest and flood, hundreds of lives had been annihilated, thousands of people rendered homeless, millions of property lost, and, most of all, the fruit and food crop destroyed.

The most important problem that thrust itself upon you on the 8th day of August was not economic, but humanitarian. It was a question of saving human lives, not for a day or a week, but for many weeks.

ORGANIZATION OF THE BOARD OF CHARITIES OF PORTO RICO.

To meet this an instrument and immediate organization was necessary. The instrument which you created for the purpose was this board, over which I have the honor to preside and which was organized in compliance with the following order (received by this board on August 9, 1899, and promulgated in paragraph 9, General Orders, No. 116, from these headquarters):

IX. All matters respecting charitable institutions, including homes and asylums for succor of the poor, sick, or incurables who are supported by insular expenditures, together with matters relating to assistance for the sufferers by the recent hurricane, are committed to a board of charities.

DETAIL FOR THE BOARD.

Maj. John Van R. Hoff, chief surgeon, president.
Surg. F. W. F. Wieber, United States Navy.
Dr. Francisco del Valle Atiles.
Capt. G. M. Wells, assistant surgeon, United States Army.
Capt. F. P. Reynolds, assistant surgeon, United States Army.
Rev. J. De J. Nin, Catholic priest.
Rev. Henry A. Brown, chaplain, United States Army.
Harold W. Cowper, acting assistant surgeon, United States Army, secretary and disbursing officer.

To this board will be transferred the executive and administrative control of the insane asylum, the orphan asylum, and the leper colony. The board will report direct to the military governor. The funds available for expenditure for the branches of the public service above indicated are those carried by the budget for the current year, and will be disbursed and accounted for by the disbursing officer under the direction of the board of charities.

LOCAL BOARDS.

On the same day the following letter was addressed to each alcalde:

JUNTA DE CARIDAD DE PORTO RICO,
San Juan, P. R., Agosto 9 de 1899.

SR. ALCALDE MUNICIPAL DE ———.

SEÑOR: El Gobernador-General ordena que por esa Alcaldía se remitan á esta Junta los nombres de tres caballeros, caritativos, de esa municipalidad, con los cuales se constituirá una Junta Local de Caridad para entender en todos aquellos

casos de necesidad ó miseria de mayor importancia que ocurrieren en su jurisdicción dando á esta Junta el informe correspondiente.

Se les encargará así mismo, en caso de necesidad, de la distribución del material que fuere necesario para aliviar la miseria.

Se entiende, desde luego, que solamente aquellos casos de desastres de consideración que las autoridades locales no pudieran remediar, se pondrán bajo la acción de la Junta Insular pero cualquier información que sobre asuntos de su competencia se le faciliten serán recibidos con gusto.

Convendría así mismo, la organización de comisiones locales, compuestas de señoras, para prestar su auxilio á los enfermos de su inmediata comunidad.

Las personas á quienes se ha de confiar esta humanitaria labor, serán elegidas cuidadosamente pues su única recompensa será el convencimiento de haber ayudado á nuestros prójimos.

JOHN VAN R. HOFF,
Major and Surgeon, United States Army, Chief Surgeon,
Presidente de la Junta de Caridad.

August 11, 1899, the following order was promulgated:

GENERAL ORDERS, No. 115. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 11, 1899.*

For the purpose of ascertaining the exact conditions resulting from the recent hurricane obtaining in the various municipal districts, the island is divided into twelve inspection divisions, corresponding to the twelve military posts, each embracing the following-named municipalities:

I. SAN JUAN.

1. Bayamon.
2. Trujillo Alto.
3. Loiza.
4. Luquillo.
5. Rio Piedras.
6. Carolina.
7. Rio Grande.
8. Fajardo.

UMACAO.

1. Patillas.
2. Naguabo.
3. Juncos.
4. Maunabo.
5. Ceiba.
6. Piedras.
7. Yabucoa.
8. Arroyo.

III. CAYEY.

1. Salinas.
2. San Lorenzo.
3. Caguas.
4. Guayama.
5. Gurabo.

IV. AIBONITO.

1. Sabana del Palmar.
2. Aguas Buenas.
3. Cidra.

V. PONCE.

1. Juana Diaz.
2. Coamo.
3. Barros.
4. Barranquitas.
5. Santa Isabel.

VI. SAN GERMAN.

1. Cabo Rojo.
2. Sabana Grande.
3. Lajas.

VII. MAYAGUEZ.

1. Maricao.
2. Hormigueros.
3. Añasco.
4. Las Marias.

VIII. AGUADILLA.

1. Isabela.
2. Moca.
3. Rincon.
4. San Sebastian.
5. Aguada.

IX. ARECIBO.

1. Hatillo.
2. Quebradillas.
3. Camuy.
4. Barceloneta.

X. MANATI.

1. Vega Baja.
2. Toa Baja.
3. Dorado.
4. Corozal.
5. Ciales.
6. Vega Alta.
7. Toa Alta.
8. Naranjito.
9. Morovis.

XI. LARES.

1. Utuado.

XII. ADJUNTAS.

1. Yauco.
2. Peñuelas.
3. Guayanilla.

Post commanders are appointed inspectors of the respective divisions, and will at once send out an officer, noncommissioned officer, or intelligent private into each municipality to ascertain the extent of damage to houses and crops; the number of injured and sick and the number of destitute; the probable amount of food in the district, and the points which demand immediate attention. These reports will be sent to these headquarters at the earliest practicable moment. It will also be the duty of the inspectors to supervise the distribution of such funds and material as may be sent for distribution to the poor by the board of charities, or other sources.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

A thousand dollars was sent to each post commander to meet the immediate demands, and food was directed to be issued from the public stores.

August 12, 1899, the following estimate was submitted:

Estimate.

Population	1,000,000
Indigent	250,000
Districts	70

Each ration for one week will consist of 3 pounds of rice, 3 pounds of beans, 1 pound of codfish or bacon, which will require for 250,000 for one week; 750,000 pounds of rice, 750,000 pounds of beans, and 250,000 pounds of codfish; total, 1,750,000 pounds. This is an average of 12½ tons per week for each district, to transport which to each will require 10 carts, 20 men, and 40 oxen, or a total of 70 districts, 700 carts, 1,400 men, and 2,800 oxen.

COST.

The estimated cost for seventeen weeks, with an average weekly distribution as above, is—

12,750,000 pounds of rice, at 5 cents per pound	$637,500
12,750,000 pounds of beans, at 3 cents per pound	382,500
4,250,000 pounds of codfish, at 8 cents per pound	340,000
Transportation, 700 carts, 17 weeks, at $10 per cart per week	119,000
Sundries	10,000
Total	1,489,000

August 13, 1899, you sent the following cablegram:

SECRETARY OF WAR, *Washington D. C.*

Further, but incomplete, returns confirm previous cable reports as conservative. Suggest appointment officer in New York to receive relief funds and supplies, cabling kinds and quantities shipped each week. Colonel Hoff, Medical Department, in charge relief work here, should be shipped this week not less than 2,500 tons of food. Best to be sent, beans, rice, and cheap grade codfish. Cotton clothing and coarse cotton goods in piece, needles, thread, also needed. Money will be applied

in assisting rebuild houses and huts and hire of help. I recommend goods described in articles 134 A, 138, 139, 191, 192, 193, be placed on free list. I have authorized employment labor rebuilding barracks at Cayey and Aibonito, wholly destroyed.

DAVIS.

On the same date the following instructions were issued to post commanders:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, August 13, 1899.

COMMANDING OFFICER,

_____ _____.

SIR: The department commander directs that you at once organize a depot at your post for the receipt and distribution of supplies intended for the sufferers from the recent hurricane. This depot should be under your personal charge.

You will also organize at the chief city in each of the municipalities in your division a subdepot, which will be under the command of a reliable noncommissioned officer, with one or more privates to assist in the distribution of food and other material. Strict account will be kept of receipts and issue, and the latter will be made in accordance with regulations which will be published in orders.

You should at once arrange for the most satisfactory transportation obtainable within your division for the transportation of material from your depot to the subdepots. No delay should be permitted, and no failure to get the material to the needy. The department commander relies upon your zeal and intelligence in carrying this work through, and no failure which human intelligence and effort can overcome should be allowed to interfere with it. You are authorized to use your entire personnel, if necessary, in this work, as well as public transportation, etc., and you will hire such transportation and labor as may be necessary, observing due economy, the object being to get the material to the points of distribution, and for this you are wholly responsible.

Issues will be facilitated by the use of measures. The soldier's tin cup will hold about 1¼ pounds of rice or beans.

You will also urge the alcaldes of your division to submit the names of three reputable and active citizens in each district to act as local boards of charities, and you will give them a provisional appointment until their nominations can be acted upon by the board of charities of Porto Rico. at San Juan, P. R.

Committees of charitable women should also be organized in the municipal districts and every effort made to bring speedy relief to the needy. Organization is a military specialty, and no unusual difficulty should be experienced in making such a one here that the result will be almost perfect.

Very respectfully,

W. P. HALL, *Adjutant-General.*

August 14 the distribution of food was placed in the hands of this board, in compliance with the following order:

GENERAL ORDERS, No. 117. HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, August 14, 1899.

I. The board of charities of Porto Rico at San Juan is charged with the supervision of the distribution of food to the needy. It will make timely requisition on these headquarters for the necessary material, which will be distributed to the depots and transported by the quartermaster's department, and it will see that all requisitions by the division inspectors are promptly filled. The division inspectors and local boards of charity will report at least once each week to the board of charities at San Juan, the former giving the number of rations issued, the latter the number requested and likely to be required, together with such other information as may be useful in the work of the board.

II. All military departments and officers on duty in Porto Rico will give the board of charities of San Juan such assistance as it may call upon them for in the prosecution of the relief work.

III. The board of charities of San Juan is required to make requisition upon these headquarters for such funds as may be necessary, for which and other material it will account as required by orders and regulations.

IV. The board of charities of San Juan is authorized to employ such personnel and purchase such material as may be necessary in the carrying out of its relief work.

V. Numbered ration cards will be issued by the municipal boards of charity

and signed by the chairman to the needy of his district, giving date, name, and number of adults and children in the family. On this card is a certificate stating that the individual named on the card is indigent and will require food for a stated number of adults and children for a specified time, which must be signed by the chairman.

The card is intended for four issues covering a period of four weeks, after which it will be taken up at the subdepot, and, if necessary, a new card will be issued by the municipal board of charities.

These cards will be furnished by the board of charities for Porto Rico at San Juan.

VI. Any irregularities or misappropriation of relief material will be immediately reported to the board of charities, San Juan, by anyone cognizant of such.

VII. A depot of supplies will be established at San Juan and at each military post and a subdepot in the chief town of each municipal district, the post depot drawing supplies from San Juan and the subdepot from the post in its inspection division.

VIII. Requisitions will at once be forwarded to these headquarters by the commanding officer of each post covering the requirements of his division for one month on the basis of 6.857 ounces of beans, 6.875 ounces of rice, and 2.285 ounces dried codfish or bacon for each daily ration.[1]

He will receipt for and be responsible for the material invoiced to him.

IX. Food will be distributed in bulk from the post to each of its subdepots, which subdepots will be in charge of a noncommissioned officer with two or more privates, who will receive, receipt, and be responsible for and issue the material invoiced him from the depot.

X. Rations will be issued to the bearers of cards certified to by the chairman of the local board of charities, which issues will be entered when made upon the issue card, and in a book to be kept at the subdepot, and no issue will be made except to the bearer of an issue card or his authenticated representative, whose name is written thereon. Accounts of issues will be rendered monthly by the division inspectors.

XI. All cards should be taken up when filled and filed as vouchers to the issue account of the subdepots.

XII. Commanders of depots and subdepots will make timely requisitions for supplies, and will be held responsible that the food is brought to the needy with the utmost promptness.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

GENERAL ORDERS, No. 119. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 16, 1899.*

I. In addition to the military post upon the island the following places are designated as depots of supplies for the destitute in their neighborhoods: Bayamon, Fajardo, Caguas, Arroyo, Guanica.

A detachment of 1 officer and 25 men will be sent to each of these places to receive, care for, and distribute supplies. The officer in charge will, if necessary, rent suitable buildings for the proper transaction of his duties and will forward to these headquarters requisitions as indicated by paragraph 8, General Orders, No. 117, current series, these headquarters, and will be governed by this order and such other instructions as may be given.

II. The commanding officers of San Juan and Ponce will supply from their posts the officers and detachments for these points as follows: From San Juan—Bayamon, Caguas, Fajardo; from Ponce—Arroyo, Guanica.

III. The destitute in the various municipalities will be supplied from the depots and subdepots as follows:

San Juan: Rio Piedras, Carolina, Loiza, Trujillo, Alto.
Bayamon: Toa Baja, Toa Alta, Naranjito, Dorado, Corozal.
San German: Sabana Grande, Lajas.
Fajardo: Rio Grande, Luquillo, Ceiba.
Mayaguez: Cabo Rojo, Hormigueros, Las Marias, Maricao, Añasco.
Caguas: Gurabo, San Lorenzo, Aguas Buenas, Juncos.
Adjuntas.
Arroyo: Guayama, Salinas, Patillas.

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[1] The ration for one person for one week is 3 pounds each of rice and beans and 1 pound of dried codfish or bacon.

Lares.
Guanica: Yauco, Guayanilla.
Manati: Morovis, Ciales, Vega Baja, Vega Alta.
Arecibo: Utuado, Hatillo, Camuy, Quebradillas, Barceloneta.
Ponce: Juana Diaz, Santa Isabel, Peñuelas, Coamo.
Humacao: Yabucoa, Naguabo, Piedras, Maunabo.
Aibonito: Barros, Barranquitas.
Cayey: Sabana del Palmar, Cidra.
Aguadilla: Moca, Aguada, Rincon, Isabela, San Sebastian.

IV. While this plan of distribution will be followed as near as practicable, it may be found necessary, on account of difficulties in certain lines of travel, to make slight changes in the depots or subdepots from which parts of municipalities will draw their supplies. Officers in charge of depots are authorized to make these changes when necessary.

V. The quartermaster's department will supply such transportation and riding animals as may be required at Bayamon, Fajardo, Caguas, Arroyo, and Guanica.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

The following ration request was devised:

Núm. ——— ——— ——, 1899.
Nombre——— Residª. ———
Número de familia——— *Adultos*——— *Niños*———

CERTIFICO: Que los arriba nombrados son indigentes y necesitarán comida para —— adultos, —— niños, por —— semanas.

———— ————.
Presidente de la Junta de Caridad.

El peso de una ración semanal es de 7 libras.

Fecha.		Hab. kilos.	Arroz kilos.	Kilos.
.....	Expedido 1ª semana	.....	.....	.....
.....	" 2a "	.....	.....	.....
.....	" 3a "	.....	.....	.....
.....	" 4a "	.....	.....	.....

Esta tarjeta es intrasmisible y solo sirve en esta distrito. Debe presentarse antes de ser despachada y constará en la última emisión. Si fuere necesario se expedirá una nueva tarjeta por el presidente de la junta de caridad. Cada emisión debe anotarse en un libro.

Identificación del pulgar.

August 16 the following order was issued:

GENERAL ORDERS, No. 120. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 16, 1899.*

For the purpose of effecting the relief of suffering from lack of food, clothing, and medicines, the president of the board of charities is authorized to correspond directly with the commanding officers of posts, inspection divisions, and those in charge of supply depots, and his requests upon such parties will be observed wherever practicable, and for this purpose he is authorized to give orders directly to such officers.

Maj. Thomas Cruse, quartermaster, United States Volunteers, is placed in charge of the depot of relief supplies at San Juan, P. R., and will act in accordance with the instructions of the president of the board of charities.

The chief quartermaster of the department will furnish such transportation by wagon and pack animals as may be available for immediate use.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

From the foregoing it will be observed that hardly an hour's delay was permitted in meeting an emergency which at noon on August 7 was totally unexpected, and which involved the feeding of an army of a quarter of a million of indigents, with a base 1,500 miles over the sea.

The scheme of organization is simple enough. A central depot at San Juan under the immediate charge of this board, 17 depots at convenient points, each under charge of an officer, and 58 subdepots, located in each municipal city, under charge of a noncommissioned officer; at each of these depots two or more private soldiers are stationed.

Food from home is landed from the transports into the central depot here and distributed by wagon or boat to the 17 depots, from which it is carried by the municipal authorities to their districts and distributed to the people.

The responsibility of determining who is indigent is placed upon the local boards of charities organized in accordance with the letter of August 9, above quoted.

Herein lies the weak point of the organization, and an explanation of its cause would involve a discussion of the sociological conditions obtaining here, which are not pertinent to this report. Suffice it to say that these people are not accustomed to organize for any purpose, particularly charity; that a gift from the charitable people of our country to preserve the natives here from starvation is not regarded as a sacred charge to be honestly administered, but as a public contribution in which all are entitled to share, and, finally, a large proportion of the people are chronically indigent and always on the verge of starvation, so that it is no easy matter to discriminate between degrees of indigency.

August 19 the following circular was issued to the local boards of charities, which indicated the lines upon which this board expected them to work. It was not deemed wise to lay down a too detailed scheme of organization. All the division inspectors (commanding officers) were experienced soldiers, and it was believed that it would be better to let them work out their interior organization within certain general lines laid down by this board. We recognized the great danger of pauperizing a people whose every tendency is in the direction of indolence, and the motto of the board of charities of Porto Rico has been from the beginning: "No one shall die of starvation and no able-bodied man shall eat the bread of idleness;" but it is much easier to suggest rules than it is to accomplish results. After several weeks' trial the board promulgated the following plan, which is now in operation:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., September 2, 1899.

To military commanders, alcaldes, boards of charities, and all interested in Porto Rico and its people:

It has been found that a more extended organization and closer inspection are necessary to prevent distress because of lack of food and at the same time to avoid the possibility of pauperizing the laboring classes by feeding those who are unworthy.

This board therefore makes the following recommendations:

(1) That an investigating committee (partly of charitable women) be organized in each barrio, whose duty it will be to investigate all cases which may

require assistance. This committee will report to the local board of charities and will furnish each worthy indigent family, or individual if there be no family, with an inspection card (A), giving the date, name, residence, number in family, and especially the number of able-bodied adult males.

This inspection card (A) will be taken to the board of charities by the beneficiary and exchanged for a ration request (B) and as many work tickets (C) as there are able-bodied adult males in the family. The ration request will be taken to the depot and the first week's rations will be drawn.

All of the above-mentioned tickets will have the same number, which will be put on them at the office of the board of charities. Upon receiving his work ticket (which he must always carry with him) the able-bodied man will report as directed on the back of the ticket, and on completing his day's work will receive from the overseer a time check (D) upon which is written the same number as that on the work ticket (C). These time checks (D) are vouchers to the ration reuqests (B), and without them, or a certificate from the barrio committee that a man is legitimately absent or ill, no rations will be issued after the first week. If, however, the man be present with his family or the people with whom he lives, and in good health, but refuses to report and work as directed, he will be arrested and required to work under guard, and a certificate that he has so worked will be a sufficient voucher for the issue of food to his indigent family.

The board realizes that no plan of relief that human ingenuity can devise will be perfect, but it believes that with the assistance of the people who have the best interest of the country at heart the plan here outlined will feed the worthy hungry and make the lazy indigent man work for his food.

Trusting that such assistance will be freely given, and realizing that much of whatever success we may have depends upon the good women of the island, I remain,

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of the Board.

A.

Núm. ——.

TARJETA DE INVESTIGACION.

Distrito de ———. Barrio de ———.

A LA JUNTA DE CARIDAD.

Señores:

——— ——— de este barrio y cuya familia consiste de ——— adultos, y ——— niños, de los cuales hay ——— varones adultos, hábiles para el trabajo, según investigación hecha, resultando ser indigentes y que necesitan provisiones para ——— semanas.

———— ————,
Por el Comité del Barrio.

———

B.

[Llévese esta solicitud con la boleta de jornal al de depósito provisiones.]

Núm. ——. ———, 1898.

Nombre ———. Resid[a] ———. Núm. de familia ———. Adultos ———. Niños ——— de los cuales. —— son hombres hábiles.

CERTIFICO: que los arriba nombrados son indigentes y necesitan provisiones para ——. Adultos —— Niños, por —— semana. Las provisiones se despacharán semanalmente y por medio de esta orden.

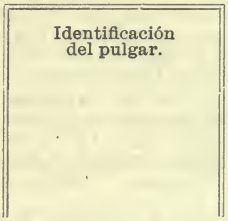
———— ————,
Presidente de la Junta de Caridad.

Después de la primera ración, esta solicitud deberá ir acompañada por el correspondiente número de boletas de jornal, una por cada dïa para cada hombre hábil.

El peso de una racion semanal es de 7 libras.

Fecha.		Hab. libras.	Arroz libras.	Libras.
.....	Expedido, 1ª semana	.....	.....	.....
.....	" 2ª "	.....	.....	.....
.....	" 3ª "	.....	.....	.....
.....	" 4ª "	.....	.....	.....

Esta tarjeta es intrasmisible y solo sirve en este distrito. Debe presentarse en el depósito de provisiones con el correspondiente número de boletas de jornal, antes de ser despatchada y constará en la última emisión. Si fuere necessario se expedirá una nueva tarjeta por el presidente de la junta. Cada emisión se anotará en un libro.



C.

BOLETA DE TRABAJO.

Fábrica de ———. Núm. ———

El portador de esta boleta se presentará en la Alcaldía maúana á las siete de la misma para trabajar. Si esta orden no se cumple, será arrestado.

Por orden:

——— ———

Fecha:

——— ———

INSTRUCCIONES.

Las boletas de trabajo se expedirán juntas con las tarjetas de ración, para los varones indigentes, aptos para el trabajo, que en ellas se expresan, debiendo corresponder el número de una y otra.

Los hombres se presentarán con sus boletas (que deberá conservar) según instrucciones al respaldo. Al concluri el trabajo del día se les expedirá una boleta de jornal con su número correspondiente á cada hombre. Estas tarjetas de jornal deberán acompañar la boleta de ración ó de lo contrario no se expedirán raciones.

D.

Boleta de jornal núm. ———

JUNTA DE CARIDAD,

——— ———

Inspector.

INSTRUCCIONES.

El Inspector hará constar en esta tarjeta el número del jornalero, entregándosela firmada á éste al terminar el trabajo del día.

Esta tarjeta debe acompañar á la boleta de raciones, sin cuyo requisito no se pueden percibir éstas.

BOARD OF CHARITIES FOR PORTO RICO,
San Juan, P. R., September 20, 1899.

INSTRUCTIONS TO NONCOMMISSIONED OFFICERS IN CHARGE OF SUBPOSTS OF THE BOARD OF CHARITIES OF PORTO RICO.

* * * * * * *

First. Food is issued to prevent starvation. It is intended for the worthy poor, and no able-bodied man shall receive any unless he gives a full day's work in return.

Second. A day's ration consists of one pound of food. For convenience, food will generally be issued weekly; 3 pounds of rice, 3 pounds of beans, and 1 pound of codfish or bacon constitute the usual allowance for one person for one week. The regulation tin cup holds about 1¼ lbs.

Third. A receipt and issue book must be kept at each depot, in which will be entered in detail, all the material received and all the rations issued.

Fourth. The local board of charities will furnish the noncommissioned officer in charge of the subdepot with an alphabetical list of indigents, by barrios; and, as a rule, issues to the indigents in each barrio will be made on a specific day, in the presence of the commissario of that barrio.

Fifth. Issues will be made on a ration "request" signed by the chairman of the local board of charities, and the exact amount given will be noted on the "request." After the first week the "request" must be accompanied by six (6) time checks, or a certificate from the barrio committee, of absence or sickness, for each able-bodied man mentioned on the "request." Without these checks or certificates no rations will be issued.

Sixth. No food will be issued on a "request" if the noncommissioned officer in charge has reason to believe that the applicant is unworthy, and the "request" will be taken up.

Seventh. Noncommissioned officers on this duty will take pains to inform themselves of the condition of the poor in their districts; will see that the boards of charities and the barrio committees perform their duty, and will at once report to their immediate commanders any irregularities observed.

Eighth. They will observe the organization and work of the indigent laborers and refuse food to those who fail to work, reporting such cases to the alcaldes and their immediate commanders, who will cause the men to be arrested and put to work under guard.

Ninth. They will under General Order No. 124, Headquarters Department of Porto Rico, dated August 19th, 1899, at once cause the arrest of anyone who misapplies the supplies furnished by this board and report the fact to higher authority.

Tenth. They will submit to their immediate commanders a weekly report on blanks furnished by this board, and will sign receipts and account for all property received by them.

Eleventh. Noncommissioned officers and privates on relief duty are officials of this board. They are in no sense under the control of the municipal authorities, and in the performance of their duties will take no orders from them. They will watch over the interests of the board in every way and will carry out to the best of their ability its rule of action, which is that—

"*No person shall die of starvation, and no able-bodied man shall eat the bread of idleness.*"

By order of the board of charities of Porto Rico:

JOHN VAN R. HOFF,
President of Board.

The greatest difficulty is found in making the able-bodied men work for food, if they can, as they usually do, get it without work. It requires rather too fine reasoning for these people, and indeed much higher orders of intellect, to appreciate the fact that they are not working for food, but life; that the food is given them to prevent their starving to death, and that if there is no danger of such a result the charity of our people is misapplied. Five cents' worth of food is a small wage for a day's work, but, as the only means to an end, the preserving of one's life, who would not work for that sum?

The Porto Rican authorities have no organizing power to utilize this enormous working force, which, if properly applied, would rebuild the towns, remake the roads, and recultivate the fields, and our own people can hardly be expected to do this in addition to already arduous duties.

The result is that there is an immense amount of idleness among the laboring classes, which threatens disaster to the island.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, August 29, 1899.

The attention of the able-bodied is called to the fact that idleness will not be tolerated in Porto Rico.

All men dependent upon the wages of labor for a livelihood must work for wages or for food, and if any such man refuses to labor his name will be reported to the inspector of his division, who will investigate the case, and if the facts are found to be as alleged will place his name on a blacklist and will thereafter permit no food to be issued to him or his family until he returns to work.

GEO. W. DAVIS,
Brigadier-General, Commanding.

The board is now considering the question of an agreement with the planters which will be mutually beneficial to all concerned.

The probable misapplication of relief supplies early received consideration, and to meet such cases the following order was issued:

GENERAL ORDERS, No. 124. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 19, 1899.*

I. It having been brought to the attention of the department commander that idle, able-bodied men are refusing work at fair wages, it is hereby ordered that no such man who so refuses will be permitted to draw food for himself or family. All men who receive food are required to do such work or service as their division inspector or his representative may direct.

II. Any person who misapplies any material furnished for the relief of the destitute by fraudulently obtaining or by selling or otherwise disposing of the same will be punished by a fine not exceeding $500 for each offense or by imprisonment for a period not exceeding one year.

III. When food can not be obtained from other sources, a division inspector is authorized to sell directly at cost price (commissary list) to the heads of families resident in his district such food from the supplies in his depot as is absolutely necessary to prevent hunger in said families. The amount of food thus sold must not exceed a week s supply at the rate of one (1) pound per day for each individual in the family. The money thus received will be accounted for to the board of charities for Porto Rico, San Juan, following the general method laid down in Army Regulations.

By command of Brigadier-General Davis:

W. P. HALL, *Adjutant-General.*

Several reports of misapplication have been received, which are being investigated. Many rumors of the selling of aid supplies are rife, but thus far no notice of any convictions under this order has reached this office.

The organization of the administrative work of this board involved no difficulty. It followed army methods, which are being carried out by men who understand them. We hear much about "red tape," contemptuous definition of a system grown out of a thousand years' experience, but which, not being understood by the tyro in our trade, is derided as cumbersome and useless. Weekly reports are submitted by each division inspector, giving all the details necessary to enable this board to keep his division supplied and to form some idea of future requirements. A strict accountability for all property is demanded, for which invoices, receipts, and returns are made.

The question of transportation is of vital importance, and is rendered more difficult by the destruction of roads and railways. Upon the recommendation of this board the tug *Borenquen* was chartered by the Quartermaster's Department to work in connection with the *Slocum*, and the following letter was sent:

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 23, 1899.

The ADJUTANT-GENERAL,
Department of Porto Rico.

SIR: The hurricane has so seriously interfered with communication by usual routes of travel that in distributing relief material this board finds it necessary to recommend that additional wheel and water transportation be provided for its work. There should be two wagon trains organized of 30 wagons each and pack trains at Arecibo, Manati, Mayaguez, and Adjuntas, if such are not now there.

There should also be two schooners chartered, one for use at San Juan and the other on the eastern coast. The former can presently be dispensed with, but the latter will probably have to be continued in service for some time. The board respectfully recommends that senders of cablegrams be requested to specify the amount of each kind of material sent, so that orders for its distribution can be made before the arrival of the ship and the material loaded directly from her into the distributing boats.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

The United States Government delivers the food at the depots, and within the divisions the local authorities are required to provide their own transportation, so far as they are able to do so, the distance to be covered at no place exceeding 20 miles. Occasional reports reach this office of a disinclination on the part of the local authorities to do their work, but it certainly is very little to ask of them.

The U. S. S. *Panther* arrived with relief supplies from Philadelphia on the 28th ultimo, and went around the island from port to port distributing the supplies in accordance with the schedule of this board, taking receipts for her issues. By this plan we were enabled to stock all our depots with the least practical delay and at the same time avoid repeated handling of cargo. In all other cases the distribution has been made from the central depot of the board here.

The board has asked for the simplest, most acceptable, and least ration with which to carry on its work, viz, beans, rice, and codfish or bacon, 1 pound of food per day for each individual. Generally this has been furnished, but, unfortunately, much flour, canned and other food, together with various things necessary to our good people at home have been sent, of which very little use can be made. When practicable, arrangements have been entered into with local bakers to make bread from the flour, but the people themselves can not do it, and I fear that much of the flour sent has been wasted or misapplied. I am endeavoring to exchange that in stock now for rice and beans.

Besides food, clothing and medicine came under the purview of this board. To meet immediate contingencies the following circular letter was sent to the surgeons of the various posts:

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, P. R., August 28, 1899.

The SURGEON, ——— ———.

SIR: Such remedies as may be supplied for the treatment of the indigent Porto Ricans will be issued to you, and from these requisitions made by the inspector of the division in which you are located or from neighboring divisions in which there is no military hospital will be filled. Until these supplies arrive you are authorized to furnish such simple remedies from your hospital as can be spared without immediate detriment to the service, resupplying yourselves when necessary by special requisition, and ultimate replacing the issue from the relief medicines furnished you as above set forth. You will keep an accurate account of all material received and issues made, giving and taking receipts for same in duplicate on the regular form, and rendering a return to the board of charities of Porto Rico upon the completion of the relief work.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., Chief Surgeon.

A considerable amount of quinine, arsenic, and calomel have been received in the aid supplies and distributed, and these have been supplemented from the military hospitals. A large requisition for medicines and dressings was some time since forwarded. Two physicians were supplied by the board.

A considerable supply of clothing, new and old, was sent from home, and the Woman's Aid Society of San Juan gave nearly a thousand dresses every week to clothe the indigent. Too much appreciation

can not be shown this association of ladies for the earnest and admirable work they are doing for the poor everywhere in Porto Rico.

Realizing that the aid from home must be limited to the shortest practicable time, this board has insisted upon the necessity for immediate planting of food-producing seeds. Your own order and the circular of this board are as follows:

GENERAL ORDERS, No. 126. HEADQUARTERS DEPARTMENT OF PORTO RICO, *San Juan, August 22, 1899.*

The attention of alcaldes and others concerned is called to the fact that the people in the country districts and in the open parts of towns should be required to at once plant corn, potatoes, beans, and such other vegetables of rapid growth as will, at the earliest possible moment, resupply the country with the requisite food. No excuse should be accepted for failure to comply with this order, the requirements of which will receive the personal attention of the alcaldes, as well as that of the comisarios de barrios.

By command of Brigadier-General Davis.

W. P. HALL, *Adjutant-General.*

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., August 24, 1899.

SIR: I have the honor to request that you will instruct your subposts commanders, and alcaldes, and boards of charities in your division to see that all vegetables issued in your division, which are suitable for this purpose, be used as seed and at once planted. The importance of this is emphasized when it is realized that only through a new crop can this people become self-supporting in the near future, and there can be no crop without planting.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R., September 6, 1899.

The COMMANDING OFFICER,
_____ _____.

SIR: I have the honor to invite especial attention to the recommendation recently sent you in regard to the necessity for immediate replanting for new crop. Should you find any scarcity of seed, such as native rice, beans, corn, etc., in the hands of the people for this purpose you are authorized to purchase them in small quantities from the local dealers for seeding, taking care that they are used for no other purpose. The beans from the United States will not germinate, and are useless for seed.

Bills for material purchased for seeding will be sent to this board in duplicate, with vouchers receipted.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

Some planting is being done, but not so much as desirable, and it is not likely in any event that the issue of food can be wholly stopped before the end of this year.

No one who has not had such work as has fallen to us here to do among such a people can form any idea of its difficulties.

There is not a single point in common between ourselves and the Porto Ricans. Language, customs, morals, and business standards all differ so radically that it is quite as impossible for us to understand them as they us. Consequently what we do for these people is done not from sympathy, but largely from a sense of duty, and is received by them not as the outpouring of a charitable nation, but as a right for which no equivalent should be expected.

We have accepted these people as our share of the burden that the

strong must bear for the weak; we will keep them alive; we will lead them slowly, gently toward the light, and finally in half a hundred years they will catch the first glimmering ray which will show them what our standards are and what we wish theirs to be.

Respectfully submitted.

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

APPENDIX B.

REPORT OF PROGRESS.

HEADQUARTERS DEPARTMENT OF PORTO RICO,
BOARD OF CHARITIES,
San Juan, November 30, 1899.

The GOVERNOR-GENERAL OF PORTO RICO,
San Juan, P. R.

GENERAL: In compliance with your instructions, I have the honor to submit the following report on the progress of the relief work in Porto Rico since September 25, the date of my preliminary report:

Cash received to date		$15,224.10
Cash expended to date		7,417.59
Balance on hand		7,806.51
Food received to date	pounds	17,162,788
Food issued to date	do	16,548,516
In depot at San Juan	do	614,272
Population		918,926
Average daily indigency		221,089
Average weekly sick		17,572
Average weekly deaths		632

Making an annual death rate of 35 per thousand, the normal rate being 26. The increased mortality is confined to the mountain districts, where in some instances the death rate has increased 300 per cent.

For many weeks following the storm of August 8 there was an almost complete paralysis of all effort on the part of this people. Proprietor and peon alike were apparently so overcome with the shock of the disaster that they believed no effort of theirs could save them from annihilation, and they made none beyond petitioning the central government for everything from a toothpick to a turnpike.

As time passed and they yet lived they began to realize that all was not lost, and slowly but surely lethargy gave place to activity. Some houses were rebuilt, some farms were cleared and cultivated, but not many. The people were and are yet without ready money and starvation ever threatens.

Along the coast the damage, largely due to flood, while very great, was offset to a considerable extent by the improvement of the sugar cane produced by the overflow. The sugar planters were, in consequence, enabled to borrow money and employ labor in the cultivation of their fields and the reconstruction of their houses.

The cities lining the coast, in their efforts to repair the damage inflicted upon them, created a considerable demand for labor, so that it may be said that after the first shock this section of the island was

HENRY BARRACKS, CAYEY.

for the most part soon able to provide for its own wants. Not generously or even liberally, but still enough. Consequently, in the lowlands, the distribution of relief supplies has gradually been suspended until in nearly all the coast municipalities no food is being furnished except in very limited quantities to the chronic poor.

In the uplands a very different condition of affairs obtains. Here are located the coffee plantations, and here the wind, driven with irresistible force, swept everything in its course, uprooting the shade trees, denuding the coffee bushes, overturning the habitations, destroying the bananas, and leaving little or nothing for the thousands of hungry, homeless, clothless human beings but their lives and what we could give to them to prevent starvation.

This unfortunately was not a wealthy district. The planters spent freely when they had and borrowed freely when they had not, until borrowing had so far dulled the edge of husbandry that they could borrow no more. The peons, literally observing the scriptural teaching to take no heed of the morrow, never provide beyond the requirements of a day.

Thus it was that an unusual disturbance of the elements and the improvidence of the inhabitants brought about a condition that threatened thousands of human lives and forced upon you as the supreme authority here the necessity for taking immediate steps to prevent a catastrophe. That action was taken, and, thanks to the generosity of our Government and people at home, the catastrophe was averted. The poor—and none was ever poorer—have been fed and their lives preserved. But the end is not yet.

By reference to the consolidated weekly reports of this board it will be seen that though a large part of the island is no longer receiving relief, nevertheless the number of indigents requiring assistance remains about the same, and the amount of the weekly issues has not diminished. Indeed, from now until February the demand is quite likely to increase somewhat in the mountain districts, for until the bananas and plantains are ripe the relief work in Porto Rico must continue. In the uplands these fruits will not be ripe for two months yet.

A glance at the map of the island will illustrate the concentration of the relief work, and some knowledge of the inaccessibility of the interior will show the difficulties this board has to contend with in getting material to the starving.

From Aguas Buenas, on the east, to Lares, on the west, and from Adjuntas, on the south, into Arecibo, and on the north, there lies one of the most beautiful, thickly populated, and inaccessible regions in the world. It covers a space about 50 miles long by 20 wide; embraces 17 municipalities; has a population of about 250,000, and not a wagon road in any direction over which food can be transported. Every pound of food has to be carried on the back of a horse. Of this population 200,000 must be fed by us or starve. If they are not fed at home, the strong will emigrate to the coast cities, leaving the weak to die, their work undone, and their future hopeless.

But this is not all: Pestilence, the twin sister of famine, has appeared, and epidemic dysentery is claiming a considerable number of victims in the mountains. This epidemic will spread to the coast should a general movement of the people occur in that direction.

Fortunately all this was anticipated and is now being successfully controlled; but we can not relinquish our efforts at this critical period without losing much of what we have gained by the hardest kind of work, and relief must continue freely and generally in the mountain districts for all of December and, I believe, for the most of January.

This means that we will require 2,000 additional tons of food, four-sevenths of which should be rice, two-sevenths beans, and one-seventh codfish or bacon. The change in the proportion of beans and rice is rendered desirable by the fact that the white bean is much harder than the native bean, and the proper method of cooking it not being understood, it causes digestive troubles, and no doubt is one of the determining factors in the production of the dysentery now so universal.

By reference to the estimate of August 12, 1899, it will be found that it was there stated that the food requirements of the relief work would equal 14,875 tons (29,750,000 pounds). With the 2,000 tons required in addition to that already issued and now on hand, the total issue will be 20,162,788. It was found that an average of 5 pounds of food weekly would meet the necessities, and the ration was reduced accordingly in most places.

The generous supply of medicines sent by the Central Relief Committee enables this board to meet all demands for remedies, which are freely made and promptly answered, the distribution being effected through the Medical Supply Depot, United States Army, and the post hospitals.

During the whole period of the relief much trouble has been taken to prevent pauperization by requiring able-bodied men to work for the food they received. Owing to various causes this was not always successful, but nevertheless a great deal of public work has been done in the way of cleaning towns, repairing roads, etc.

Various plans for utilizing the unemployed were devised, among them that of a combination between this board, the impecunious planters, and their peons. The essence of this plan is that the board of charities should furnish food to the planters for the number of peons and their families required by them in restoring and cultivating their farms, in return for which the planters sign a written agreement to furnish a small parcel of land and a hut to each family, which land they are to see prepared and seeded with food plants. They are also to see that the laborers and families are supplied with the food supplied by this board, and that the laborers render a full day's work in return.

The planter furnishes transportation for the food from the most convenient depot to his farm.

This plan was promulgated on the 15th of September, it being estimated that possibly 500 planters would avail themselves of the opportunity. Applications began to pour in upon the board at that date, and have continued to this day in undiminished numbers. Three thousand four hundred and thirteen applications have been received, of which thus far 795 have been approved, 134 suspended, 28 have been declined, and the remainder are being investigated. Through this means 39,344 people are being fed, many of them in places where otherwise it would have been almost impossible to reach them; 7,869 laborers are at work, 800 plantations are being restored, and 8,000 plots of ground are producing food which will soon be ready for consumption.

The board believes that this plan was well conceived and is fraught with good to all concerned. It certainly has added greatly to its labor, as each applicant is carefully investigated and each case involves the writing of at least seven papers, and oftentimes more, before completion.

The administrative work of the board early began to run smoothly. The transportation and supply depot, under the immediate charge of Maj. Thomas Cruse, quartermaster, detailed by General Orders, No.

120, current series, from these headquarters, has been admirably conducted, and the supplies so promptly distributed that no failure has ever occurred between the central and division depots. A strict system of accountability has been devised, and it is believed that with the close of the work everything received here can and will be duly accounted for by vouchers.

As a general proposition it may be stated that all relief work must be accepted as the least of two evils, and that it should be stopped at the earliest practicable moment. In this view of the case, the board of charities may venture to briefly express an opinion upon the economic situation here.

The year ending with the day of the hurricane was one of extreme unrest and uncertainty in Porto Rico, but not one lacking in prosperity. The invasion was not followed by the devastation of war, but by the influx of millions of dollars disbursed for and by the thousands of soldiers who landed on these shores. To be sure, the channels of exterior trade were somewhat dislocated, business had not adjusted itself to new conditions, there were doubt and apprehension among the capitalists; but in spite of this the balance to profit must have been greater than that to loss, and except for the inability of real property to hire money, due to a cause not necessary to mention, conditions in Porto Rico might be said to have been prosperous.

On the 8th of August, within a single day, all this had changed, and distress, poverty, want, starvation, and death suddenly stood where on the previous day were comparative comfort, bright prospects, and high hopes for the future. The exciting cause of this change was the hurricane, but the continuing cause is the locking up of capital, of which there is doubtless just as much, if not more, in Porto Rico to-day than there ever has been.

Until this capital is unlocked, until money begins to flow freely in its natural channels—in a word, until confidence is restored—the work of this board must continue. It is fully realized that this statement is axiomatical and has been many times expressed, but oftentimes even self-evident truths must be iterated and reiterated before the desired impression is produced.

The board believes that it can perceive at least three means by which confidence will be restored and capital made available, one demanding the executive action of the department commander and the others the legislative action of Congress.

These are: (1) To restore the borrowing power of the land by permitting mortgage laws to take their course; (2) to spend freely on public roads the money to be borrowed on guaranteed bonds; and (3) to invite the introduction of outside capital by a judicious granting of franchises.

Our Government and people have generously contributed food to save the lives of starving thousands, the only thing that could be done; but better far for the people and the state to invest ten borrowed millions in public works than one contributed million in pauperizing charity.

Respectfully submitted.

JOHN VAN R. HOFF,
President.

APPENDIX C.

(Blanks used in relief work were omitted, owing to cost of printing.)

PART II.

INSTITUTIONS.

BOYS' CHARITY SCHOOL, SANTURCE.

PART II—INSTITUTIONS.

CHARITY SCHOOLS, INSANE ASYLUM, AND LEPER HOSPITAL.

All matters respecting charitable institutions, including homes and asylums for succor of the poor, sick, or incurables who are supported by insular expenditures, together with matters relating to assistance for the sufferers by the recent hurricane, are committed to a board of charities.

To this board will be transferred the executive and administrative control of the insane asylum, the orphan asylum, and the leper colony.

The above is an extract from the order establishing the board of charities of Porto Rico. The "homes and asylums for the succor of the poor, sick, and incurables" were all included in "the insane asylum, the orphan asylum, and the leper colony." There were no others. At the time of the publication of the above order, there was no office existing to which the care of public charity could be properly assigned.

The orphan asylum was in charge of the board of education, and the other two institutions were transferred from the board of health.

Public charity had never reached sufficient proportions in Porto Rico to require the establishment of a special department for the care of its institutions. It is true that a board of charities was formed here in the beginning of the present century, about 1822, but it was a municipal body and it had no definite public responsibilities. Its life was short, for it was abolished during the following year.

It may therefore be said that the board formed last August is the first of its kind in Porto Rico.

Its field has been limited to the work which came to it at its institution.

Its duties along the line of hurricane relief have prevented anything more in the administration of permanent insular charity than the care of the three asylums originally given over to its charge.

The board appreciated the fact that organizations of charity throughout the entire island was a consummation ultimately to be obtained, either through its agency or that of its successor under a civil government. It realized that charity was a most pressing necessity. It also realized that it was here most freely dispensed, without any system whatever. And it was obvious that organization with a view to a systematic and scientific management of this work of so vital importance in any people's progress was an essential part in any scheme for the advancement of Porto Rico's interests.

Of charitable institutions throughout the island, the number was extremely small, and these were private in character. There were no almshouses, few hospitals which merited the name, no asylums for special classes, no dispensaries; in fact, there was nothing to substitute for the custom of supporting street beggars, so universal in Latin countries.

An industrial school was considered one of the first institutions to be established. The administration of the orphan asylum brought the need of such to the attention of the board. There were many incorrigibles therein, the proper place for whom was a reformatory school;

in fact, the asylum itself had come to be considered in the light of such an institution.

The establishment of this school was to have been one of the first of the board's undertakings upon the cessation of the relief work. It was intended to provide for it in the quarters occupied by the boys of the orphan asylum before their removal to Santurce. But, as evidenced by the first part of the report, the arduous work of relieving the hurricane indigents remained undiminished until the board gave place to its successor under the civil government, and indeed for some time thereafter.

Consequently the time and attention necessary to extend the permanent charitable organizations could not be given, and the work of the board along these lines was confined to such as related to the institutions that came to it upon its organization.

In the beginning the administration of these was of necessity carried on considerably according to the regulations in force under the Spanish Government. This applies particularly to the admissions and discharges and the internal management. However, everything to the minutest detail was under the direct supervision of a committee of the board. The administration of the finances was radically changed to conform to the strict accountability demanded in all cases where insular funds were disbursed.

A complete purchasing department was organized in the office of the board, and every expenditure for materials was made through this department. The greatest possible economy was thereby obtained. The method in use required a monthly requisition for supplies from each institution. If this was approved by the board it was turned over to the purchasing agent, who placed a detailed list of the supplies needed for all departments with the various merchants. These submitted bids on each separate article, and the orders were placed accordingly.

Upon the removal of the children to Santurce a set of regulations governing all departments was adopted, and a system of reports and returns perfected.

A brief history outlining the progress under this board and the report of the chairman of the committee of the beneficencia follows.

INSANE ASYLUM AND CHARITY SCHOOLS.

For a history of the manicomio (insane asylum) and beneficencia (orphan asylum), attention is invited to the excellent article on the subject by Dr. Francisco de Goenaga, the present superintendent of the insane asylum. From the time of the establishment of these institutions until the occupation of the island by our forces they were under the control of the diputacion provincial, a body peculiarly Spanish, of which no prototype exists in our own country. Such a body being considered superfluous, it was abolished by General Brooke on November 29, 1898. In the general orders discontinuing it the department commander made use of the following words: "The existence of the body known as the diputacion provincial being considered as wholly unnecessary and incompatible with the present administration of public affairs, it is hereby discontinued and abolished."

The same order assigned the care of charitable institutions to the secretary of state. The insane and orphan asylums were practically the only institutions included under this heading. About two months later a change was again made in the administrative state departments by General Order 15, series 1899. This inaugurated a depart-

ment of the interior, among the duties of which the care of the asylums was included. They passed to a subbureau of education, and remained therewith until the formation of the superior board of health in June, 1899, when the insane asylum was placed under its control. The hurricane of August 8 prompted the military governor to institute an insular board of charities, whose principal object at that time was to manage the work of relief which the great storm made necessary. It was nevertheless designed that this board should be permanent, and the care of all insular charities was transferred to it.

The board was so thoroughly occupied with the work of relief that it was compelled to delegate to a committee the complete supervision of the insane and orphan asylums with the understanding that gradual but progressive improvement was in order, though radical changes should be deferred until such time as the subject could be taken more completely under consideration. Such changes were early recognized as necessary, there being few of the existing conditions wholly compatible with the ideas of the board.

The beneficencia building itself is located excellently so far as hygienic conditions are concerned, but the fact that it was within the bounds of a thickly populated city made it impossible to provide for the proper exercise of the inmates. This was particularly applicable to those of the orphan asylums, although it is needless to say that it militated against the physical health of the insane, and made the possibility of their ultimate recovery more remote.

The interior arrangements were not satisfactory. The installation of a modern system of plumbing was required. There were no water connections. The closets were no better than was to have been expected, simply cesspools. A disregard of sanitation was apparent in this direction. The bathing facilities, especially in the insane department, were inadequate.

Many minor repairs were considered advisable, such as reflooring, placing of new walls, etc. There was a lack of properly arranged school space.

The laundry and kitchen departments were most complete, and the general appearance of cleanliness in these departments, as well as throughout the remainder of the building was notable.

It is so contrary to American methods to permit religious influences to permeate public institutions that the paramount importance attached to all things Roman Catholic at the asylum naturally attracted the attention of the board. There was an order of sisterhood represented, which literally controlled the entire institution from the preparation of the morning's coffee to the permitting of the superintendent to enter the building after a certain hour at night. The superintendent, by the way, was theoretically the head of the institution. The Sisters of Charity were originally brought from Spain under contract with the Government to serve at the Beneficencia.

The sisters are excellent managers and know no end to their labors. Although their contract was a most liberal instrument to them, their absolute control of the internal arrangement was undoubtedly due to their excellent personal qualities, which in the natural order of things gave them that which the superintendent, a political appointee and possibly a party pensioner, was theoretically supposed to retain.

As regards the internal conduct of affairs, it may be said that the chief condition that appealed to the board was a certain indefinable spirit of nonprogressiveness, a noticeable backwardness, as compared to the modern advancement of our home institutions. In the insane asylum the absence of modern methods in the care and treatment of

the patients was apparent. It impressed the members of the board as a home for those mentally afflicted where good food, a fairly comfortable habitation, and medical treatment for incidental physical maladies were obtainable, but where enthusiasm in the scientific treatment of mental infirmities was not present.

The dormitories were clean, the infirmary was well taken care of, and the courtyard was free from objectionable features. The cells were simply small rooms, none padded or supplied with modern appliances. As before mentioned, the cesspools were offensive, and the plan of placing buckets in a ward and a small room where the patients congregated, for the purpose of receiving their excreta, of course required alteration.

As regards the orphans, it might be said incidentally that the asylum had come to be regarded by many as a house of correction, and powerful influence always secured the admission of a child in advance of his fellows, whose applications may have been filed for many years. In this way the original intention was perverted, and there were many inmates who had no moral or legal right to enjoy the benefits of the institution. They were composed largely of a class whose natural instincts were not of the highest order and whose prototype may be seen in our industrial schools at home. Order was well maintained, but by constant restraint. Individualism seemed to be wanting, and any effort to encourage personal ambition was not apparent.

The educational features were certainly not modern. There was no well-regulated system of grading. The books were obsolete, and the facilities were inadequate. Children who had been inmates for years were discharged unable to read. Many in the institution could not read or write, and the attainments of the more learned were hardly more satisfactory. On one occasion a committee of the board conducted a superficial examination and it was discovered that a class in reading was able to peruse certain schoolbooks, but merely by rote, they not having an idea of the subject discussed.

The fact that all instruction was more or less religious in character was noted.

Although the sexes were as strictly separated in both asylums as was possible, a certain amount of intercommunication was unavoidable, and the fact that orphans and insane were housed under one roof and that the male and female orphan departments were in juxtaposition was not in conformity with the board's ideas, and separation was made more urgent when suspicions arose that clandestine meetings had been held by certain of the older boys and girls.

The regulations governing the institutions adopted in 1886 covered the ground satisfactorily, except in one important feature—that of religion. They were not, however, strictly enforced, as evidenced by the nature of the admittances and by the incompleteness of certain returns and reports therein required.

Although an insular institution, there were found no provision for proportionate representation from the various municipalities. In fact, the number of San Juan's inmates was far in excess of its share.

The above were a few of the features which early impressed the board. At its first meeting, on August 10, 1899, the entire supervision of the institution was delegated to the following members as a committee of the Beneficencia: Dr. Del Valle, Surgeon Wieber, Captain Wells, Chaplain Brown, and Rev. Father Nin. Chaplain Brown and Father Nin were constituted a subcommittee on the orphan department, and Surgeon Wieber and Captain Wells on the insane asylum.

Upon the departure of Dr. Del Valle for the United States and his

consequent resignation as a member of the board, this committee was reorganized and constituted as follows: Surgeon Wieber, chairman; Chaplain Brown and Father Nin, subcommittee on orphan department, and Captain Wells and Señor Degetau on insane. Señor Federico Degetau was appointed a board member by the governor to fill the vacancy caused by Señor Del Valle's departure.

In the first part of September Chaplain Brown was relieved as a member of the board, and Captain Reynolds took his place as committeeman.

The committee investigated applications for admission and recommendations for discharge. It approved the monthly expenses. Its decisions regarding appointment of teachers and other employees were accepted by the board.

On August 31 it submitted its estimate of expenses for the ensuing year, in which provision was made for an amount to cover the expense of many needed repairs. The estimate and report accompanying was as follows:

Estimate of expenses for 1899 and 1900, orphan and insane asylums.

Administration.	Salaries.
1 director and chief physician	$2,000
1 assistant physician	900
1 clerk	1,000
1 practicante	600
1 porter	300
1 steward and messenger	360
26 Sisters of Charity	4,680
8 attendants for the insane	2,400
3 servants	360
1 Sister of Charity (pension)	72
SCHOOL.	
1 professor	900
1 assistant professor (first ayo)	600
1 ayo and teacher	420
1 ayo	300
1 kindergarten teacher	480
1 professor of music	500
1 assistant professor of music	180
1 professor of drawing	500
TRADE SCHOOL.	
1 shoemaker	400
1 tailor	400
1 carpenter	500
1 bookbinder	400
1 printer	500
1 engineer	600
3 helpers, for the carpenter, printer, and engineer, $300 each	900
LABORERS.	
1 storekeeper and watchman	300
1 helper	120
SUPPLIES AND MATERIAL.	
Subsistence	19,224
Clothing, bedding, and shoes	3,000
Washing and sewing	576
Utensils and furniture	480
Medicines, dressings, and instruments	700
Lighting	400
Tobacco for the insane	60
Water	720
Sundries	300
Chapel and religious service	550
A small library for orphan asylum	300
Stationery and schoolbooks	600
Material for trade school	2,300
REPAIRS AND IMPROVEMENTS TO BUILDING.	
To insane asylum (about)	10,000
To orphan asylum, including new workshop (about)	28,000
Total	87,882

NOTE.—The repairs going on at the present time in the insane asylum are included in the estimate of expenses.

SAN JUAN, P. R., *August 31, 1899.*

PRESIDENT BOARD OF CHARITIES OF PORTO RICO.

SIR: The committee on the Beneficencia have the honor to submit the following report on that institution:

1. The building.—They find that the main building, which contains the administration and school rooms, also the dormitories and chapel, is unsanitary by reason of the presence of the old system of latrines, which are not connected with the city sewer. There is an insufficient water supply to the building. There are no lavatories or bathrooms. The dormitories are overcrowded. The floor in many places is rotten. One of the shop buildings is in ruins.

Recommendation.—The building should be repaired wherever necessary. The present latrines should be abolished as soon as possible. Proper flush closets and urinals, trapped and connected with the city sewer, should be substituted. Bathrooms and lavatories should be introduced.

Second. The school.—The school for the boys is at present badly organized. The number of teachers is inadequate to the number of pupils requiring instruction. While there are five teachers for the girls, there are only two available for the boys. The school is in want of books; it requires a rearrangement of its classes according to the ages of the pupils. For want of proper supervision of the inmates of the institution, a bad state of morality exists, which can only be suppressed by decided measures. All the workshops which were formerly used for the teaching of various trades to the boys after they had attained a certain age are now closed. A large amount of machinery which belongs to the Beneficencia is left on the grounds and requires careful attention to keep it from ruin.

In the insane asylum sanitary improvements are being made to better existing conditions. The building and all arrangements for the proper care of the insane, however, are altogether inadequate to the needs of an institution of its kind at the present time. Its wards are also overcrowded.

In order to improve existing conditions at the Beneficencia, the committee considered it essential that a physician of experience be placed at its head who, besides being its chief physician, shall be held responsible for the internal administration and the sanitary condition of the institution. He shall be held responsible to the board of charities. We suggest for this appointment Dr. F. de Goenaga, who, during the service of seven years as the physician of the Beneficencia, has become acquainted with its system of administration, its defects, and its needs. The salary of $2,000 is suggested as a proper remuneration for his services.

We further recommend that the position of assistant physician be created, with a salary of $900.

The positions of clerk, practicante, porter, steward, attendants, etc., as mentioned in the estimate of expenses, are recommended to be continued. For the school the following additional force is deemed necessary: One additional ayo, who shall be a qualified teacher; 1 kindergarten teacher; 1 professor of music and 1 assistant; 1 teacher of drawing.

If one of the objects of the institution, namely, that of teaching the older boys who have passed the school age various trades and thus make them useful members of the community, is to be respected, the trade schools must be reopened or else all the boys above the mentioned age must be discharged from the asylum.

We recommend that the trade schools be reopened; that the necessary building, which was destroyed by fire a short time ago, be rebuilt. The following shops can be reopened in a very short while: The shoemaker's shop, the tailor shop, the bookbinder shop. The other shops can not be worked until the necessary building and boiler has been set up. It is suggested that the work done in these shops should be, primarily, work for the Beneficencia; later, Government work of various kinds could be done. The following force is recommended: One shoemaker, 1 tailor, 1 carpenter, 1 bookbinder, 1 printer, 1 engineer, and 3 mechanics.

The storekeeper and helper are at present needed to look after tools and machinery.

At last we recommend that the item of a small library, to consist of select English and Spanish books for the use of the children, be allowed, to supply a pressing want. Out of school hours the children have nothing to occupy their mind. Their playgrounds are very limited, and as a consequence constant quarrels and still worse results of enforced idleness have come under observation.

We further recommend that all pupils on reaching the age of 18 should be discharged from the asylum.

Very respectfully,

THE COMMITTEE ON THE BENEFICENCIA.
F. W. F. WIEBER,
Surgeon, U. S. N., Chairman of Committee.
F. DEGETAU Y GONZALES.

The PRESIDENT BOARD OF CHARITIES.

This was forwarded to the military governor; approval recommended. The second indorsement by the governor was as follows:

Respectfully returned to the president of the board of charities. Owing to the state of the finances of the island and the island itself, as a result of the cyclone, it is considered advisable that the expenses should not exceed what is provided for in the budget.

By command Brigadier-General Davis:

J. S. BATTLE, *Aid-de-Camp.*

And a further indorsement from the same source stated that—

The budget calls for the following:

Orphan asylum	$27,017
Orphan asylum and school	5,100
Insane asylum	22,903
Total	55,020

The estimate herewith, exclusive of the item of repairs, is $49,882, which, according to Mr. Clark, who prepared the original estimate for the general budget, is $5,762 in excess of such original estimate for these two institutions proper, omitting the educational features. But this difference is just about the original allowance for the orphan asylum school proper, and is approved, which brings the total appropriation to the amount stated, to wit, $55,020 for the Beneficencia and the insane asylum.

But as respects the $38,000 for these repairs $13,200 is now all that can be appropriated, and with this modification the budget as submitted within is approved.

The lack of the necessary funds, as evidenced by the above, was the chief obstacle to the rapid advance of the physical improvements. Delay was experienced in securing expert opinion from the bureau of public works, which was unusually busy on property damaged by the hurricane. Although the conditions requiring alteration were many and varied, there was no hesitancy in allotting the limited means available to the work of installing a sanitary system of plumbing at the insane asylum. Because of the necessary formalities to be observed, progress in the work was much delayed; but on September 16 the committee reported that the architect of the bureau of public works had at last been secured, and had visited the Beneficencia for the purpose of instituting the necessary alterations, and such went forward gradually until the first week in the following January, when they were completed.

The committee's recommendations regarding the sanitary improvements in the orphans' department, submitted October 14, 1899, were as follows:

In order to put the orphan asylum in good sanitary condition, the following changes are considered necessary:

1. The building should be connected with the city water system.
2. Proper sanitary water-closets and urinals should take the place of the present latrines, and should be connected with the sewer.
3. The old cesspools should be emptied and filled in after disinfection.
4. Sanitary lavatories and bath rooms, with properly tapped sinks and bath arrangements for the two sides, the hospital wards, the director's and the sisters' quarters, should be introduced as soon as possible.
5. A verbal estimate of this work has been submitted by the board of public works, which sets the cost of these changes at about $8,000. Similar repairs to the insane asylum are estimated to cost about $7,200, making a total of $15,200. As only $13,200 is set apart for repair work at the Beneficencia, the sum of $2,000 is needed to accomplish the wants of the institution in that line.
6. It is respectfully requested that the necessary amount of money be allowed from funds already allowed for Beneficencia use to enable us to make these necessary repairs.

Very respectfully,

F. W. F. WIEBER,
Chairman Committee Beneficencia.

The commanding general placed the following indorsement thereon:

An additional allotment of $2,000 for repairs of the orphan asylum and insane asylum, as recommended within, is approved, but the aggregate of appropriation for these two institutions as contained in the present budget must not be exceeded. Other items in new appropriations for these two institutions must be diminished in the aggregate by the sum of $2,000.

It will be noted that economy was still of the first consideration.

The board of public works was about to commence these repairs when the proposition to remove the children into other quarters was brought prominently before the authorities. This prompted the following communication from the governor, which caused the cessation of all action in this direction:

Respectfully returned to the president of the board of public works.

The $2,000 referred to was to be expended by the board of public works in addition to the $13,280 allowed in the budget. No special items were to be diminished, but the board of charities was to so cut down expenses at the orphan and insane asylum as to allow this additional amount for repairs.

However, as there is a chance of the orphans being removed to the Ecuelas Pias, the repairs to the orphan asylum will be for the present deferred.

Official copy respectfully furnished to the president of the board of charities.

The administrative history of the institution up to the time of the removal of the schools to Santurce was as follows: The regulations previously governing therein remained in force as a whole, but portions that were incompatible with the views of the board, or when the exigencies of the case demanded, were disregarded and its decisions upon the subject substituted.

The internal administration remained the same. There were no changes in methods of procedure in the purchasing or accounting departments, except that the vouchers for such expenses were subject to the approval of the committee.

The admissions and discharges were made according to the former routine, but all were passed on by the board, and personal influence was no longer a factor in such action.

The position of superintendent had become a sinecure and was openly considered a suitable reward by the Government to one whose services had been long and faithful. Such an incumbent filled the office. It was decided that in order to secure to the position its prerogatives its occupant should be a physician of high professional and moral standing and a man whose activity was not impaired by age.

Many applications for the superintendency were received and referred to the committee, who recommended the appointment of Dr. Francisco Goenaga.

The recommendation was approved by the board and the position was forthwith tendered and accepted. Dr. Goenaga had been physician to the asylum for six years. He accepted the appointment on September 11 and immediately took possession of his office. It was designed that thereafter the superintendent should be head in fact as well as in name.

It was found no easy task to reinvest the superintendent with such power and responsibilities as were deemed essential to his office; but gradually and tactfully the ursurped authority has been transferred from the powers that had been for twenty years (the sisters) to the superintendent, where it must rest. Yet it was not until after the military government had ended its existence that many of the keys were finally placed in his keeping.

The crowded condition of the orphan asylum was somewhat relieved in September by the discharge of fourteen boys over the age of 18 and

two whose insubordinate conduct merited such action. Another reduction was effected in November, when it was decided that 16 should be the maximum age for male inmates. The question of diminishing the number of female inmates was difficult to solve. They could not be thrown on their own resources, for their own were practically nil. The customs of the country were responsible for this. But the fact remained that those who had no families could not be discharged without some provision being made for their future. The Woman's Aid Society was communicated with, but with very little expectation that any arrangements could be made. The education of the girls along such lines as to instill into their minds many ideas inimical to their future usefulness precluded any chance of their legitimate employment.

The history of the schools for the orphans runs most unevenly during this period. The above report of the committee states that there were five teachers for the girls—sisters, by the way—and only two for the boys. These two were also monitors or care takers, and were engaged doubtless as much for their monitorial qualities as for their educational attainments.

In the matter of placing the schools on a satisfactory basis the difficulties encountered were many. There were no class rooms, there were no teachers, there were no books, and, above all, the lack of discipline resultant from a year's disorganization was most difficult to contend with. The new superintendent reported as follows soon after taking his office:

> I visited the schools to-day and desire to report to the board that they are not in a satisfactory condition. The greater proportion of the children are unoccupied except in conversation with one another. The teachers assert that they are not at fault and claim that the condition is due to the lack of books.

It may be said in passing that experience has demonstrated that the maintenance of order in a schoolroom is not to be expected under a native teacher.

At the meeting of the board on October 2 it was decided to retain as head of the school the teacher then in charge. It was agreed to increase the force by three additional ayos (subordinate teachers and care takers), one English teacher (male), and an English female teacher for the kindergarten. Applications for these positions were referred to Father Nin and to Señor Degetau as a committee. At this meeting full authority was given to the committee of the beneficencia to take any steps that it should deem necessary to accomplish the organizations of the schools.

On October 23 the English teacher took charge of his classes, only to resign a few days later. He was reappointed. A week later one ayo and the kindergarten teacher took over their respective duties.

The need of satisfactory school space was most keenly felt. One large class room was all that was available. It was thought advisable to divide this, but again the expense became an insurmountable obstacle, and other means for accomplishing the end were sought. It was finally decided to arrange class rooms in the ends of the several dormitories; and though anything but satisfactory, it seemed the only alternative.

There was an absolute dearth of school material, including books; but in this particular these schools were but suffering as all others throughout the island. The board was dependent upon the board of education for furnishing the very basis of its school organization, and,

neither knowing the nature of the material to be provided nor the date when such could be expected, essential arrangements were necessarily held in abeyance.

In order, if possible, to expedite this important matter the following letter was addressed to the military governor:

SAN JUAN, P. R., *October 13, 1899.*

THE MILITARY GOVERNOR OF PORTO RICO, *San Juan.*

GENERAL: Referring to the letter of the chairman of the committee on the beneficencia of the board of charities of Porto Rico, recently forwarded, approved by order of the board, I have the honor to ask if the schoolbooks therein requested can be issued at once, so that the school at the orphan asylum may be instituted immediately. It goes without saying that school facilities are very necessary in this institution, and schoolbooks are an essential thereto.

Very respectfully,

JOHN VAN R. HOFF,
President Board of Charities of Porto Rico.

This was referred to the board of education and returned indorsed that "this paper was received October 26, and books had already been distributed to the asylum schools."

It was not until early in November that regular and systematic instruction became possible. At this time instruction was being given in two sections. Nevertheless the committee reported unsatisfactory progress.

There had been under the former régime a department of trades, where the older boys were taught to be machinists, tailors, carpenters, shoemakers, or lithographers. This had been in disuse since the American occupation. Efforts were at once made to secure competent citizens to assume charge of these branches and recommence the instructions along these lines. The positions were advertised and many applications received. These were referred to a committee consisting of Father Nin and Señor Degetau, and upon their recommendation three mechanics were appointed October 17. The absence of school organization and the insufficiency of workshop material delayed this section, and there had been little or nothing done in this direction up to the time of the removal of the schools to Santurce.

It of course had always been held as one of the necessary moves of the future to separate the children from the insane and to provide a separate building for each sex, and it was at this meeting of the board, November 4, that the question was brought to the immediate attention of its members, it having been ascertained that two excellent buildings at Santurce could be made available. A month later it was definitely decided to make the transfer, and thereafter further alterations in the internal arrangements were deferred. At this meeting also the question of military organization in the schools began to take shape, although the idea in an incipient form had been present from the beginning.

The two buildings at Santurce referred to are the Instituto and the Madres. The former was built in 1880, when it was placed in charge of the Jesuit fathers. It was later turned over to the religious order of Pious Schools, and was in its possession up to the time of its transfer to the board of charities. It could accommodate 500 children and was destined for the use of the boys' department.

The Madres is a somewhat smaller building erected along much the same lines as the Instituto, and located about half a mile nearer the city. It was built in 1883 and turned over to the Mothers of the Heart of Jesus, a religious order of nuns, who conducted a school therein for the children of the higher social classes. These buildings

were insular property and the military governor ordered their transfer to this board, to take effect not later than January 1 of this year.

Although excellently located, the buildings themselves naturally required many alterations to meet their new use. The board delegated the supervision of this work to the committee of the beneficencia and the superintendent of the insane asylum. The improvements progressed until, by the last week in January, the buildings were sufficiently adapted to meet the requirements and the removal of the children took place.

Benjamin Del Valle was appointed acting superintendent of the boys' school and Sister Martinez of the girls'.

Steps were now taken to effect an entirely new organization of the administrative force and a radical change in the method of internal management.

The board decided that the time was appropriate for promulgating its ideas as to the basis of organization for the future. It was first determined that the institutions should thereafter be known as charity schools, as the term orphan asylum was clearly a misnomer, a large per cent of the inmates having parents.

The need of regulations for the government of the now separated schools was of course apparent, and those now in operation were adopted by the board on March 8, 1900. These in many respects were revolutionary in character, and it was well understood that their complete enforcement would not be attained for many months, and such enforcement was not begun at the girls' school under this board except so far as the rendering of reports was concerned. Sister Martinez declined to accept the superintendency of this school and, on the recommendation of Father Vallanueve (the head of the order), Sister Justa Urra was appointed. Sister Justa has managed the school in a manner satisfactory to the church and her order (!) with few restrictions, and the running has been comparatively smooth.

On the removal of the schools the personnel consisted of the superintendents, an insufficient number of sisters, and servants, and it was not until nuns arrived from Spain on March 13 that it was possible to complete the personnel. This unavoidable lack of a sufficient number of employees, in addition to the absence of definite regulations, made the absolute satisfactory running of the school impossible. This was of course expected. On March 12 it was decided to ask Mrs. Davis, Mrs. Lugo Viña, and Señora Quinones to serve as a visiting committee to inspect the schools. They very kindly accepted, and on April 3 visited both schools. Their report on that of the girls was as follows. It indicates that evidence of the results of the above condition were apparent:

SAN JUAN, P. R., *April 18, 1900.*

To Col. JOHN VAN R. HOFF,
President of the Board of Charities.

DEAR SIR: The committee of ladies appointed by the board of charities to visit the charity schools at Santurce begs to present the following report of their visit to said institutions on April 3, 1900:

GIRLS' SCHOOL.

Our visit was unexpected by the sisters in charge. We found all the older pupils busily engaged in lace making, fine sewing, or in making clothing for themselves under the supervision of the sisters. We would suggest that the mending from the Boys' Charity School now done in this institution be given to capable women, who would do it in a proper manner, and at the same time teach these girls how it should be done, as at present the work is more than they can do, unaided, and the sisters say they have no time to devote to it.

The girls personally are in an uncleanly condition. There are no means furnished for warm baths, and cold baths are required only once a week, or not so often. We strongly advise warm baths once or twice a month for cleanliness, as well as cold baths two or three times a week, and sea baths now and then as a means of improving their general health.

Each girl should have two towels. At present two girls are allowed one towel per week. Their teeth are neglected. Each girl should have her own brush and comb, and be required to use them, and not allowed to use oil on her hair. We advise that the hair of the younger girls be kept short.

Their clothing is not sufficient for cleanliness. They have no night clothes and are obliged to wear at night the same clothing they have worn through the day.

There is only one sheet on each bed, which is changed once in three weeks. They use one of their blankets as an undersheet.

The house is fairly clean, with the exception of the toilet rooms, which are in a very unsanitary condition, and the infirmary, which needs a thorough cleaning. We would suggest that the children with tuberculous affections be isolated or removed from the institution.

The dinner which was served while we were there was quite good and abundant.

We would also suggest that a woman be employed to teach these girls plain American cookery, such as bread making, baking, etc. In this way they will learn the use of the oven, of which they know nothing, and at the same time improve and vary their own cooking, and find themselves with some means of support on leaving the institution.

The general appearance of the girls is not good. They show lack of exercise in the open air, and certain moral and mental depression not natural to children. We think outdoor work and play would be most beneficial to them.

Very respectfully,

CARMEN A. DAVIS.
MODESTA G. DE QUININES.
GRACE DE W. LUGO VIÑA.

The conditions to which attention is called therein had been recognized as requiring remedy, and progress in that direction had been made. But the necessity of economy was made apparent here as at the insane asylum, as evidenced by the following letter from the president of the board, and the accompanying indorsement:

FEBRUARY 19, 1900.

MILITARY GOVERNOR OF PORTO RICO, *San Juan, P. R.*

GENERAL: In order to increase the efficiency, accommodation, and healthfulness of the building occupied by the Girls' Charity School at Santurce, I am directed by the board of charities of Porto Rico to ask that the following-named repairs be authorized and executed:

First. Convert the present chapel into an upper and lower dormitory, thus affording space for sixty additional inmates.

Second. Complete the work on the rear extension, including upper gallery, and improve approaches to messroom from main floor. This in addition to conveniences will increase the accommodation by an additional forty.

Third. Install shower baths.

Fourth. Introduce modern plumbing, water-closets, and wash basins.

If it is impracticable to introduce modern water-closets, it seems advisable to construct a latrine on the lines of that at the boys' school, and remove the hopper closets or most of them now in use. A proper lavatory on each floor is very desirable. The proposition to place the infirmary in the second story of the extension can not fail of approval, as by this plan the sick will be effectually separated from the well. It is suggested that the entire second floor be devoted to this purpose, dividing it by suitable partitions into ward, lavatory, nurse room, dispensary, operating room, linen closet, and isolation ward.

If all of the above can not be done, it is asked that as much as possible be undertaken, and in the order named.

Very respectfully,

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A., President of Board.

[First indorsement.]

HEADQUARTERS DEPARTMENT OF PORTO RICO,
San Juan, February 20, 1900.

Respectfully returned to the president of the board of charities, with the information that the military governor directed that an estimate be prepared of the

GIRLS' CHARITY SCHOOL, SANTURCE.

cost of the work of converting the chapel into dormitories and the completion of the rear wing; but he is unable to consider now the proposal to reconstruct and rearrange the plumbing in the seminary, on account of the lack of means for this purpose. Such minor repairs of the plumbing and water fixtures as may be necessary in order to preserve the status quo will be attended to. The sanitary arrangements in this building are not satisfactory, but they have sufficed without reported detriment to the health of the occupants, and must so continue to be used until means are available for extensive improvements.

By direction of the military governor:

J. S. BATTLE, *Aid-de-Camp.*

On January 20 Mr. Benjamin Del Valle received his appointment as acting superintendent of the boys' school and at once assumed his duties, and a few days later 20 boys were transferred. On February 21 the remainder were taken to their new home. On February 17 the board decided that until its regulations were published no more admissions would be made to either school, and that under no circumstances would children thereafter be admitted from the municipality of San Juan until all other cities had either their proportionate representation or all their applications for admissions granted. At that time three-fourths of the inmates were residents of the capital.

On March 8 the final approval of the regulations as published was made and a much-needed basis provided for the guidance of the officials of the institution. An important factor in the new scheme of management was the introduction of a military organization into this school. For this a commandant was required, and on January 26 the adjutant-general was requested to detail an infantry sergeant to fill this important position.

Apparently none was available, and a private of the Hospital Corps was detailed to assume this charge. The results of the innovation have been all that could have been expected. A certain amount of esprit de corps has been instilled, which is absolutely invaluable. The boys have been taught the entire "setting-up" exercise and many of the simpler evolutions. The routine of the day's work and recreation is governed by bugle calls.

On February 20 the staff of officials was increased by the acceptance by Dr. Arnau of the position of visiting physician for both schools. As required by the regulations, Dr. Arnau submitted such incidental reports on his inspection as he considered necessary, and one comprehensive monthly report covering the sanitary state of the whole institution. Practically the chief objectionable sanitary feature was that caused by the lack of modern closets, lavatories, etc.

The dry-earth method, with daily removal, is in use, and for the purpose a building is provided at some distance from the school. But means must needs be provided inside the building for the use of the patients, and of the boys at night, and these caused most reasonable objection.

Dr. Arnau's report thereon was as follows:

APRIL 10, 1900.

The BOARD OF CHARITIES, *Porto Rico.*

SIRS: I respectfully beg to inform you that the closets used by the boys on the second floor of this building are in a deplorable state. The floor is of wood, and is so soaked by the incessant emptying of the different vessels of the establishment that the boys are unable to approach the closets because of their sanitary condition, and to do away with the bad odors so near the infirmary; for this reason I beg to propose that new ones be installed, with proper floors, abundance of water, and receivers that can be easily cleaned.

Respectfully,

DR. R. ARNAU.

Endeavors have been made to secure installation of these closets without result. On March 22 a letter asking for these improvements was forwarded to the military governor, approved by the board. The following reply thereto was received:

APRIL 10, 1900.

The PRESIDENT BOARD OF CHARITIES.

SIR: Referring to the request for repairs and improvements at Boys' Charity School, I am directed by the military governor to say that there are no means available to make the repairs, alterations, and additions to the boys' school, Santurce, as recommended by the board of charities, per indorsement dated the 22d ultimo.

Very respectfully, J. S. BATTLE, *Aide-de-Camp.*

The monthly inspection reports by the attending physician for March was as follows:

ORPHAN ASYLUM OF PORTO RICO,
San Juan, P. R.

The BOARD OF CHARITIES OF PORTO RICO.

SIRS: In accordance with regulations for orphan asylum, I have the honor to remit my first sanitary report:

BOYS DEPARTMENT.

My letters addressed to the board at different dates during the month of March express my views with regard to the following details: Quantity and quality of the food, especially of the meat.

The need of a supply of socks for the boys, without which they are unable to use the shoes provided for them. The desirability of appointing a dentist to examine the boys' teeth, as these are in a deplorable state. And above all the very poor sanitary condition of the closets on the upper floors of the buildings.

I now beg to draw the board's attention to the following remarks:

The supply of water, although sufficient to meet the ordinary demands of the establishment, and the fact of there only being two dripping stones for filtering the drinking water, is a great defect in the sanitary arrangements, so I respectfully advise that a filter similar to that in use in the lunatic asylum be provided, as the filtered water is not sufficient.

The system of cleaning out the closets situated on the ground floor on the west side is already well known to the board, and though not of the best, it at least fulfills its requirements; but the same can not be said of the closets on the upper floors, those being in a very uncleanly state.

This I mentioned in my letters to the board, stating at the same time the only method that could be applied.

With regard to cleanliness and ventilation of the rooms, I can only say they are properly attended to.

The disorganized state of the attendance at the asylum exposes defects now existing in the infirmary department. An operating table is indispensable; one like that in use at the lunatic asylum would meet the requirements.

There are numbers of cases of contusions, whitlows, and ulcers which have to be attended to, and operations are difficult without the necessaries for operating.

The dispensary is in a very defective state, so much so that nearly all the prescriptions have to be made at a druggist's, a very costly proceeding although a rebate in the price is made. This want could be remedied by thoroughly providing the dispensary with the necessary drugs, as per list sent by me to the board when I first took charge, and with some capable person to make up the prescriptions and at the same time aid the doctor in his work if the latter thinks fit. A functionary similar to the one now at the lunatic asylum is what is required, as the sisters of charity, though excellent nurses, have neither the sufficient knowledge to work up the prescriptions nor can they assist the doctor in his operations. The attendance in the infirmary should be as efficient as that found in any modern hospital, otherwise serious defects may arise, which the doctor, however competent, is unable to remedy.

A general state of anæmia, so common in this country, is very prevalent among the boys, and to combat this evil I respectfully beg to state that good nourishment and pure filtered water are indispensable.

During the month of March there has been a slight attack of la grippe, which has since disappeared, and there has also been several cases of sore feet among the boys, caused by the want of stockings.

Dr. R. ARNAU.

APRIL 10, 1900.

The BOARD OF CHARITIES OF PORTO RICO.

SIRS: With regard to food and water and also a generel state of anæmia, I beg to apply the same remarks to the girls' department as I made with reference to the boys' with the only addition that amongst the girls there are more cases of scrofula than among the boys, and fewer cases of sore feet.

The principal ailment in the infirmary during the month has been caused by gastro-intestinal troubles, but without any serious results.

I beg to draw the attention of the board to the great benefit sea bathing is, and much recommended for the above ailments at this time of the year. A place called the Condado, at a short distance from the asylum, I would recommend as being suitable for the girls to bathe in, as the water is purer and the air freer from malaria in that neighborhood than near the buildings. The girls could be conveyed in two boats by two attendants of the establishment, this mode of communication being quicker and better than going around by land.

In closing this report I beg to also draw your immediate attention to the state of the closets in this establisment, the greater number of which are closed as unserviceable.

Respectfully, Dr. R. ARNAU.

Instruction was begun at once in both schools under the direction of the teacher who had been in charge at the Beneficencia.

In order to secure the benefit of instruction to both institutions from the limited number of teachers, classes were held in the morning at the girls' school and in the afternoon at the boys'. The teaching force consisted of the head teacher, a Porto Rican teacher of writing, one of geography and grammar, a professor of English, an American teacher of arithmetic, and an American kindergarten teacher. At first there was almost an entire absence of material, which somewhat delayed the work. The scholastic instruction has not been satisfactory.

There has been a continued state of disorganization and lack of discipline in this department, and no progress has been apparent.

It is difficult to state definitely the cause for this. In fact there were many such. There was a lack of power of organization and executive ability in those in immediate control of the schools, and in conjunction with a growing disregard on the part of the boys for all authority, made satisfactory work impossible.

This difficulty in controlling the boys became a serious problem. They had always been held under such strict rule in their former home, without any freedom either of thought or action, that upon being given practically unlimited bounds at Santurce, with an effort to secure discipline by moral means, the reaction came with force. A Porto Rican boy is much older than his age indicates. His natural reasoning power is disproportionate to his age, and his ingenuity is frequently that of an adult. When enlisted on the side of malicious mischief, their control becomes a matter for serious consideration. Whatever the cause, the fact remains that lack of discipline was a growing evil from the day of removal. This was forcibly brought to the attention of the board when, in the middle of March, complaint was made that cruelty was practiced in the exercise of punishment by the officials. An investigation was ordered which exonerated those in authority. The report of the committee resulted in the adoption of a definitely graded and rational method of punishment.

But the schooling remained entirely deficient. This was perhaps unavoidable in part, as the whole process was in an experimental stage. A difficult question to satisfactorily solve was that of grading. It seems that this had not been attempted under the previous régime, for boys of advanced age, who had been inmates for years, showed no results of instruction, while some of the younger inmates were much

further advanced. As a temporary measure age was made the basis for the assignment of the pupils, and the grading of the scholars as well as the disposition of the teachers was left to the discretion of the superintendent of instruction. His arrangements had not resulted satisfactorily at the time of the transfer of the schools to the civil government, and the subject was turned over to the new board in an embryonic stage.

Not so with the entire economic management. From a condition of laxity and absence of personal accountability in the internal economy the institutions have been brought to a standard of business conduct which, by a system of receipts, reports, etc., has resulted most satisfactorily.

On March 29 Mr. Del Valle's resignation as superintendent of the boys' school was presented to the board. Action was deferred to the 31st, when it was accepted, and on April 7 Señor Ramon Vilar was appointed his successor. He took over his duties at once.

Upon the removal of the charity schools from the beneficencia building it was decided to increase the capacity of the insane asylum by so altering the portion formerly occupied by the girls as to adapt it to the use of the female insane. In order to accommodate all whose applications were on file this improvement was absolutely necessary.

The following committee report covering these alterations was forwarded to the military governor March 30, 1900, with the board's recommendation that the work be performed as soon as possible:

In order to fit up for the insane asylum purposes the wing of the beneficencia which was formerly occupied by the orphan girls, and thus to enable the institution to take in and to properly treat all the insane of the island, which can not be done now in the old asylum building for the lack of space, the following work is necessary:

1. The closing up and filling in of all the old drains and sewers which now connect with the inhabited part of the building and with that part which is to be fitted up for the reception of the insane.
2. The substitution of a new drainage system with sanitary plumbing for the old one.
3. The replacing of the old washtubs in the laundry by new ones having proper drains and sewer connection.
4. The replacing of the present sinks in the kitchen by new ones with proper sewer connection.
5. A construction of 12 cells for the insane in the present chapel and 6 in basement underneath the chapel, having asphalt floors and wooden partitions. The floors in each cell to be graded to a cesspool which runs into a 5-inch drainpipe and connects with the sewer.
6. The furnishing and putting in of iron water-closets with automatic flushing attachments at the site of the old latrines having six seats, floor to be cemented and to be provided with a drain.
7. The furnishing and putting in place in the present bathroom 6 wash basins, 6 showers, 1 bath tub, similar to the corresponding fixtures in the new annex of the old asylum building, floor to be cemented and to be provided with a drain. All drains to connect with sewer.
8. The furnishing and putting in place of a water-closet and a sink in the infirmary.
9. The furnishing and putting in place and connecting with sewer of a water-closet, bath tub, 2 wash basins on second floor, replacing the old latrine, and old cement tub. Floor to be cemented and provided with a drain.
10. The furnishing and putting in place one water-closet, a wash basin, a bath tub, and shower for the use of the assistant physician. Cement floor and drain.
11. A courtyard drain with sewer connection.
12. Water connection to all cells, water-closets, bath tubs, sinks, courts.
13. Four pieces of rubber hose 10 feet long, with screw attachments for fitting water pipes for cells with nozzles.
14. Two pieces of rubber hose about 100 feet long for use in cleaning courtyard.

The cost of this would have been about $8,600. The governor's indorsement thereon was, "It is impracticable to allot this money at present."

Nevertheless the female insane were transferred to the portion previously occupied by the girls after some minor repairs had been made. This change made it possible to admit all the island's insane.

The adoption of the institutional regulations was as great a necessity for this asylum as it was for the schools. And it was then only that the asylum began its transition from the old to the new, and the process was well on the way on May 1, when the board ceased to exist.

The statistics of the insane for the months in which this board controlled the asylum are herewith attached.

Insane asylum statistics, from August, 1899, to April, 1900.

	August.								September.							
	Male.				Female.				Male.				Female.			
	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.
Paresis				9				3				9				3
Imbecility				4				1				4				1
Monomania		1		9			1	5				8				6
Homicidal mania				4								4				
Dementia				17	2			23	1			17	1			21
Idiocy	1			3				3				2				3
Suicidal mania				2								2				
Mania	1			5		1		14				4		1		13
Kleptomania				1								1				
Melancholia				3				2		1		3				2
Dipsomania				1								1				
Epilepsia			1	1				5				2				5
Erotomania								1								1
Nymphomania								3								3
Lypemania						1		6								5
Undiagnosed							1				2				3	

	October.								November.							
	Male.				Female.				Male.				Female.			
	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.
Paresis		1	1	9				3		1	1	9	1			3
Imbecility				4				1				4				1
Monomania				8				6				8				6
Homicidal mania				4								4				
Dementia		1		16	2			21	1			15				19
Idiocy	1			2				3				1				3
Suicidal mania				2						1		2				
Mania			3	6				15	2	1		9				15
Kleptomania				1								1				
Melancholia				2				2				2		1		2
Dipsomania				1								1				1
Epilepsia	1			2	1			5				1	1	1		4
Erotomania								1								1
Nymphomania								3								3
Lypemania								5						1		5
Undiagnosed							2								4	2

Insane asylum statistics, from August, 1899, to April, 1900—Continued.

	December.								January.							
	Male.				Female.				Male.				Female.			
	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.
Paresis	----	----	1	9	----	----	----	2	1	----	----	10	----	----	----	2
Imbecility	----	----	----	4	----	----	----	1	1	----	----	4	----	----	----	1
Monomania	----	----	----	8	----	----	----	6	----	----	----	8	1	----	----	6
Homicidal mania	----	----	----	4	----	----	----	----	2	----	----	4	----	----	----	----
Dementia	1	----	1	14	2	----	----	19	----	----	----	14	1	----	----	17
Idiocy	----	----	1	1	----	----	----	3	2	----	----	2	----	----	----	3
Sucidal mania	----	----	----	1	----	----	----	----	----	----	----	1	----	----	----	----
Mania	----	----	2	6	----	----	----	16	----	----	----	8	1	----	----	16
Kleptomania	----	----	----	1	----	----	----	1	----	----	----	1	----	----	----	----
Melancholia	----	----	1	2	----	----	----	1	----	----	----	3	----	----	----	1
Dipsomania	----	----	----	1	----	----	----	1	----	----	----	1	----	----	----	1
Epilepsia	----	----	----	1	----	----	1	3	----	----	----	1	1	----	----	4
Erotomania	----	----	----	----	----	----	----	1	----	----	----	----	----	----	----	1
Nymphomania	----	----	----	----	----	----	----	3	----	----	----	----	----	----	----	3
Lypemania	----	----	----	----	----	----	----	4	----	----	----	----	----	1	----	4
Undiagnosed	----	----	2	----	1	----	1	5	----	----	----	2	1	1	16	3

	February.								March.							
	Male.				Female.				Male.				Female.			
	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.
Paresis	----	----	----	9	----	----	----	2	----	----	----	9	----	----	----	2
Imbecility	----	----	----	4	----	----	----	1	1	----	----	4	----	----	----	1
Monomania	----	----	----	8	----	1	----	5	----	----	----	8	----	----	----	4
Homicidal mania	----	----	----	3	----	----	----	----	----	----	----	3	----	----	----	----
Dementia	1	1	----	15	2	----	----	20	----	----	----	13	----	----	2	18
Idiocy	----	----	1	3	----	----	----	5	----	----	----	4	----	----	----	5
Suicidal mania	----	----	----	2	----	----	----	----	----	----	1	2	----	----	----	----
Mania	----	1	1	15	----	1	----	33	----	----	2	17	1	----	----	24
Kleptomania	----	----	----	2	----	----	----	----	----	----	----	2	----	----	----	----
Melancholia	----	----	----	3	----	----	----	1	----	----	----	3	----	----	----	1
Dipsomania	1	----	----	1	----	----	----	1	----	----	----	----	----	----	----	1
Epilepsia	----	----	1	5	1	----	----	3	----	----	1	6	----	----	----	2
Erotomania	----	----	----	----	----	----	----	1	----	----	----	----	----	----	----	1
Nymphomania	----	----	----	----	----	----	----	3	----	----	----	----	----	----	----	3
Lypemania	----	----	----	----	1	----	----	4	----	----	----	----	----	----	----	3
Undiagnosed	----	----	4	2	----	----	2	2	----	----	3	4	----	----	2	2

	April.								Total.			
	Male.				Female.				Male.		Female.	
	Died.	Discharged.	Admitted.	Remaining.	Died.	Discharged.	Admitted.	Remaining.	Died.	Under treatment.	Died.	Under treatment.
Paresis	------	----	----	9	------	------	------	2	1	12	1	3
Imbecility	1	----	----	3	------	------	------	1	3	5	------	1
Monomania	------	----	----	8	------	------	------	4	------	9	1	6
Homicidal mania	------	----	----	3	------	------	------	------	2	5	------	------
Dementia	------	----	----	13	2	------	------	20	4	19	12	30
Idiocy	------	----	----	4	------	------	------	5	4	8	------	5
Suicidal mania	------	----	----	3	------	------	------	------	------	4	------	------
Mania	2	----	----	19	1	------	------	23	5	25	3	28
Kleptomania	------	----	----	2	------	------	------	------	------	2	------	------
Melancholia	------	----	----	3	------	------	------	1	------	4	------	2
Dipsomania	------	----	----	----	------	------	------	1	1	1	------	1
Epilepsia	1	----	----	7	------	------	------	3	2	8	4	6
Erotomania	------	----	----	----	------	------	------	1	------	------	------	1
Nymphomania	------	----	----	----	------	------	------	3	------	------	------	3
Lypemania	------	----	----	----	------	------	------	3	------	------	------	7
Undiagnosed	------	----	4	7	------	------	1	4	------	11	------	5

Admissions and discharges, charity schools, August, 1899, to April, 1900.

	1899.						1900.			
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Boys:										
Admissions		3	1	5	0	2	23	6	0	1
Discharges		3	10	9	11	7	3	5	17	34
Deaths		0	0	0	0	0	0	0	0	1
Remaining	227	227	218	214	203	198	218	219	202	168
Girls:										
Admissions		2	3	3	4	6	8	3	0	0
Discharges		1	7	8	1	2	1	0	1	5
Deaths		0	0	0	0	0	0	0	0	1
Remaining	154	155	151	146	149	153	160	163	162	156

A few words on the relation of the sisterhood to these public institutions may not be inappropriate.

As above noted, six sisters were originally brought from Spain in 1863, under contract, for the distinct purpose of giving their services to the beneficencia. As may be observed, their contract specifically stated that the rules of their order would continue to be their governing force in all matters, and that no civil decisions contrary thereto would in any way affect them individually or as a body. This was perfectly feasible under the then existing form of government, a government in which the religion of the sisters, as of all citizens, was the State religion. This system itself was not compatible with the spirit of those who now had control of the asylum. Nevertheless the existing conditions were such as to demand its continuance. But certain modifications were deemed advisable. These, however, were not on religious grounds, but for the purpose of placing the management on a more rational and businesslike basis.

It was early discovered that the order was simply in the institutions, without being of them. It was apparently an example of individuals endeavoring to serve two masters, although as a matter of fact the nuns paid no attention to the civil authority, being governed in all matters by decisions from an entirely exterior source—the delegate of their order in Porto Rico. This naturally caused more or less conflict, for the board of charities proposed to control the institution, both as regards the inmates and the employees. To exemplify the result of the external control it is sufficient to state that the individual nuns were being constantly transferred from one department to another and from one institution to another without the knowledge of either the superintendent or the board. That the board's employees should be thus disposed of was incongruous. The fact that the sisters had been in the ascendency for many years, although with undoubted advantage to the asylums, called for reform.

The board of charities of Porto Rico, being largely composed of military officers, realized that its existence was but a matter of a few months, when, on the inauguration of a civil government, it would turn over its functions to a permanent organization. Under these circumstances its actions were always tempered with the idea of merely roughly shaping the conduct of its asylums and schools and placing them in a fair way to receive the innovations which would eventually be instituted by its successors. With this end in view it endeavored to conduct the institutions to a higher level or organization and to

place them on a firm working foundation, leaving where possible the more radical changes to those whose terms of office would warrant their taking them under consideration.

For these reasons the question of settling finally the basis on which the sisterhood could work in conjunction with the board was postponed, although it will be seen that the regulations recently adopted for the government of the schools and hospitals clearly state its ideas thereon.

The board simply endeavored to guide the institutional management out of the bog of disorganization and faulty regulation toward a highroad smoothly paved with modern ideas, upon which it could travel successfully and unfalteringly.

It feels that in its various steps in relation to the schools it has steadily gone forward in the accomplishment of this object. It has provided new nomes, modern books, and a basis for an excellent military organization; it has inaugurated a satisfactory system of internal and external economical management, and by its regulations furnished a firm foundation upon which structural improvement may hereafter make its base. It would have done even better if competent teachers could have been obtained.

LEPER HOSPITAL.

It is unknown when leprosy first gained an entrance into Porto Rico. It has probably existed here from the early times of the African slave trade. It was always looked upon with indifference, until about thirty years ago, when the subject seems to have been considered of enough importance to attract the attention of the authorities. In 1870 the provincial diputacion recommended the establishment of a leper hospital. The government failed to approve, on the grounds that funds were not available. The importance of segregation was clearly understood by the medical profession, and as a temporary measure it endeavored to secure the passage of an order requiring each municipality to isolate and care for its own cases. But, because of the absence of official support, this also was unsuccessful. Ten years later a second attempt in this direction was made, and with more favorable results. In 1880 the municipality of San Juan built a hospital for lepers on the site of the present one in the rear of the jail. It was a municipal institution, and harbored, on completion, six unfortunates collected within the city. It was directly under the control of the city council, which provided each inmate with 6 pesos monthly for his support. This was a step in the right direction, but an extremely short one. The patients were simply provided with a home. No restrictions were apparently placed upon their actions. Their intercourse was unrestrained, and for the purpose of supplying themselves with food, which they effected with the 6 pesos contributed by the municipality, they wandered through the city's markets and stores at will. It is difficult to understand the principles upon which such an institution was based.

No other municipality took steps to isolate its lepers. During the year 1895 or 1896 the diputacion provincial renewed its attempt to establish an insular asylum upon a modern basis. It appointed a committee to investigate the subject and recommend a suitable location. The committee selected a site about 10 miles east of San Juan on the north coast, and recommended its purchase. Owing to the fact that complications arose when the question of the transfer of the property was broached, and probably to the insufficient support

PORTO RICAN LEPERS.

of the government, the matter was pursued no further. In passing it may be said that the diputacion was but an advisory body, whose duties ended with investigations and recommendations, or carrying out specific instructions of the government. The initiative was consequently not frequently taken, as actual execution depended upon other authority.

The status of the San Juan asylum was maintained until February, 1899. No efforts were made to increase the efficiency of the institution. On the contrary, from inattention the building became dilapidated, and the number of inmates was reduced to 2. In February, 1899, General Henry instituted a board of health for San Juan, constituted as follows: Captain Davison, United States Army, president; Surgeon Glennan, United States Marine-Hospital Service (advisory member); Dr. Del Valle; Dr. Nater, health officer and secretary.

To this board was transferred what remained of the leper asylum. One hundred dollars was secured from the military government and the building placed in repair. It was made an insular institution. A circular letter was sent to each municipality announcing the change, and informing it that the board was ready to take care of the island's lepers. This elicited reports of several cases, but no patients were sent at that time.

In May a general search for cases of leprosy was conducted in San Juan. This resulted in the segregation of 11 lepers. During the same month 1 leper was forwarded from Ponce. With the 2 remaining a total of 14 cases was being cared for on the 1st of June, 1899. A physician was appointed; a guard and a cook were engaged; necessary supply of medicines and subsistence stores was purchased, and the inmates were thereafter strictly isolated. No admittances or deaths occurred during June. On July 1 the asylum was transferred to the superior board of health. During this month 1 case was admitted. This board at once realized the necessity for providing something more than a small frame building for the accommodation of these people. A committee was appointed to submit recommendations as to a suitable locality for the establishment of a colony. The report of the committee of the board of health was as follows:

JULY 17, 1899.

GENTLEMEN: In accordance with the resolution of the superior board of health, adopted July 9, 1899, "that a committee of one be appointed to make report on the present condition of the leper asylum, what improvements are necessary," etc., by the appointment of the chairman I have the honor to submit the following report:

During the early part of the past winter, when a house-to-house inspection of San Juan was made by the local military board of health, of which I am an advisory member, a number of cases of leprosy was discovered concealed in different parts of the city in crowded tenements and, in some instances which I personally observed, where laundering and other work was taken in from American residents.

It was also ascertained that before the war a number of these unfortunates were collected in a rough frame building located immediately in rear of the jail, within the city limits, near a number of inhabited cottages, and adjoining low marsh lands.

As a pressing temporary measure these cases were collected and returned to this crude asylum until better isolation and quarters could be obtained. These proletaires were necessarily a public charge; rations were issued to them, and a keeper appointed to reside at and oversee the place. There are now 14 cases collected in this building—8 males and 6 females.

A few cases have been transferred here from Ponce, and the estimate is that there are about 50 cases upon the island.

It may be stated briefly that leprosy occurs at all ages, that it is a bacterial disease, and that it is contagious by inoculation, and that bad food, constant fish diet, and bad surroundings predispose to the disease.

The geographical distribution of leprosy is extensive. It is found in the West Indies, the islands of the Pacific Ocean, in Madeira, South America, Mexico, Louisiana, California, British Columbia, Minnesota, and New Brunswick, where a large colony exists.

Without discussing whether leprosy is a contagious or infectious disease, or its method of propagation, it is declared a quarantinable disease by the quarantine laws and regulations of the United States; also careful observation shows its spread in communities where the leper is not isolated.

In the Sandwich Islands it was noticed among the natives in 1859 and traced back to 1848. It spread rapidly, and in 1865 there were 230 known lepers in a population of 67,000. By 1891 the native population diminished to 44,232. Of these, 1,500 were lepers, or 1 to every 30 of the population.

In New Caledonia it was unknown until 1865. It is supposed to have been introduced by a Chinaman who was well known. Its rapid diffusion throughout the island has been traced step by step, and in 1888 the lepers numbered 4,000. (Mason, Tropical Diseases, 1898.)

Leprosy never makes its appearance unless introduced by a leper, and the leper must be regarded as a source of danger to the community in which he lives. Facts are stubborn things, and the only way to suppress the disease is by thorough isolation.

The present location of the leper hospital, in a single rough building in the rear of the jail and within the city limits, is totally unfit for the purpose and a menace to this community.

In looking over the field for a site for the proper isolation of these afflicted outcasts, the essentials were considered to be:

1. Their complete separation from inhabited districts.
2. A location where pure air, water, and exercise could be obtained.
3. Where a quantity of arable ground could be found suitable for fruits, truck gardening, support of goats, fowls, etc., and thus conduce to their self-support, contentment, and happiness.

One of the small islands lying off the coast of Porto Rico naturally suggested itself, and after a preliminary inquiry and inspection the small uninhabited island, or cay, of San Luis was considered a good location for the purpose.

This island is situated 18° 18' north and 59° 8' west of Greenwich, just off the east coast of the island of Porto Rico; it is 80 miles from San Juan, by water about 150 miles from Ponce, and near by to the island of Culebra. I spent a day, and accidentally, a night, upon this island, making an investigation of its fitness for the purpose intended, sleeping on the ground under a tarpaulin because the transport *Slocum* failed to return in the afternoon and pick us up.

It contains a total area of about 400 acres, and between two steep rises of over 200 feet there is a bottom level of over 45 acres of arable land covered with thick undergrowth, and some fair-sized trees.

A fresh-water run makes down one of the rises of this level, which could be impounded and a supply of fresh water secured. There are beach landings on the north and east sides; on the former an inexpensive rough dock could be constructed with bowlders and stones near by.

Timber is sufficient for fire and other purposes. Wild parrots are present in considerable number, and fish and turtle are abundant.

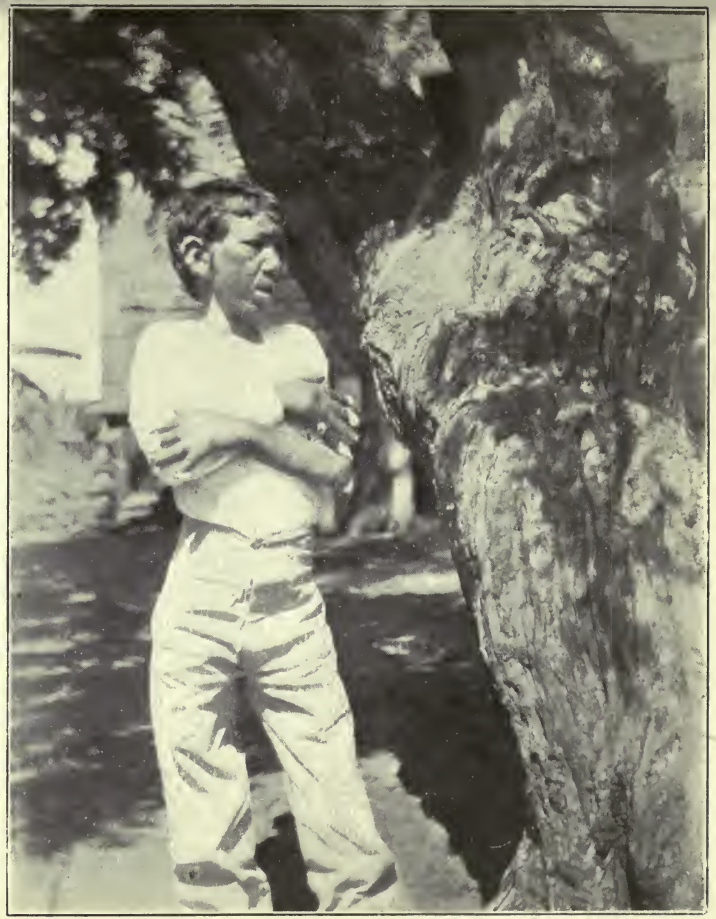
Taking altogether, the island is considered suitable for the location of a leper colony, where they could be properly and comfortably isolated at less expense than at present site.

At this time it is not considered necessary to erect buildings of an expensive character, but to house them in modest cottages, with due regard to age and sex, and having inclosed patches of ground for cultivation.

Bearing in mind that expensive buildings are out of the question at the present time, but that the colony can be maintained upon Luis Pena Island at no greater public charge than at their present location, the following recommendations are made:

1. That the fresh-water supply be exactly determined by sinking two or three driven wells to ascertain the character of the surface water; also to decide the amount of impounding necessary to collect a water supply at different levels in the rocky draw, which could be piped to required places by natural fall.
2. The water supply proving sufficient, a rough stone landing should be constructed upon the east-side beach for small boats and lighters, using the bowlders near at hand.
3. After marking all fair-sized trees suitable and desirable for retention, the bottom tract of about 40 acres should be slashed and grubbed, from beach to beach, thus giving a clear building site and free ventilation from shore to shore. If convict labor can be employed upon this work the expense need not be very great.

LEPROSY—MAN AGED 35 YEARS.



A LEPER, AGED 16 YEARS.

Finally, it is estimated that with the services of convict labor the clearing of the grounds, erection of temporary buildings, etc., the cost of housing the leper colony upon San Luis Island would be about $5,000.

A. H. GLENNAN.

This report was adopted. On July 20 the board endeavored to inspect Punta Salinas with a view to ascertaining its desirability for this purpose. A landing was prevented by an approaching storm, and a second opportunity was not afforded. Upon the formation of the board of charities of Porto Rico, August 9, 1899, the leper colony was placed under its control. The paramount issue before the board was the relief of hurricane sufferers, and this remained of so great importance throughout its existence that it was not possible to devote such time to the leper asylum as would otherwise have been considered necessary. At the first meeting, August 10, 1899, the supervision of the hospital was delegated to a committee composed of Captain Reynolds and the secretary. The hurricane had rendered the building uninhabitable, and the committee on its first visit of inspection found the patients housed in the basement of the jail as the only available shelter. They were isolated completely. Association or communication with the prisoners was made impossible. Immediately after the hurricane an estimate of the cost of repairs was secured from the board of public works. The expenditure of the $800 required was not approved by the military governor, and the board awaited further action by higher authority, the proposition to convert Cabras Island into a leper colony being then under serious consideration. The board was forced to abandon this project when it was decided to use that location for military purposes.

Of course the continuance of the lepers in the jail was far from an ideal disposition, and could not be tolerated. When the proposition to use Cabras Island was no longer to be considered, the following letter was addressed to the governor by the board:

GOVERNOR-GENERAL OF PORTO RICO,
San Juan, P. R.

GENERAL: I have the honor to recommend that the old leper hospital be at once repaired for temporary occupancy by the lepers now in the basement of the jail. It is believed important that no delay should be permitted in getting the lepers out of their present quarters.

Very respectfully, JOHN VAN R. HOFF, *President.*

The governor's indorsement on this communication was:

Orders have been given for the repair of this building. It is supposed that the repairs should be completed in three days.

It was reported ready for occupancy November 11, and the patients were removed from the jail during this month. This was considered purely a temporary arrangement, and steps were at once taken to establish a colony. Early in October the chairman of the committee on leper asylum made a visit to Battery Island, Punta Salinas, for the purpose of ascertaining its adaptability to the needs of such an institution. He reported that the location met all requirements and recommended the erection of the necessary buildings and the inauguration of the colony at the earliest practicable moment. After several conferences with the board upon this report the following letter was forwarded to the military governor:

OCTOBER 23, 1899.

GOVERNOR-GENERAL, *San Juan, P. R.*

SIR: I have the honor to report that Battery Island, off Punta Salinas, has been inspected by a member of this board and found suitable for a leper colony, and to

recommend that buildings, etc., for that purpose be erected thereon at the earliest practicable moment, as follows: Four dormitories (each for 30 inmates), 100 by 24 by 12; 1 hospital, 100 by 24 by 12; 1 kitchen, 20 by 20 by 12; 1 administration and storage building, 50 by 24 by 12; 1 quarters superintendents and attendants, 50 by 24 by 12; 1 laundry, lavatory, and bath, 30 by 24 by 12; 2 privies; 1 wharf, 20 by 6; 1 boathouse; 1 cistern, 100,000 gallons; 1 stairs, 25 by 6; 1 windmill.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of the Board.

This letter was referred to the board of public works, which surveyed the island and submitted plans, specifications, and cost for buildings. The drawings and estimates were completed December 27. The cost was estimated as $71,160.75. Endeavors were made to reduce this estimate, but without success. The papers were referred to the board of charities, who returned them with the following indorsement:

JANUARY 29, 1900.

Respectfully returned to the adjutant-general Department of Porto Rico, recommending that the work of construction be undertaken at the earliest practicable moment. Lepers are scattered all over the island.

By direction of the board of charities of Porto Rico:

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

On January 25 the following letter was addressed to the adjutant-general:

JANUARY 25, 1900.

ADJUTANT-GENERAL DEPARTMENT OF PORTO RICO.

SIR: I have the honor to again urge the necessity for the immediate organization and housing of a leper colony on Battery Island (Punta Salinas). The reports received by this board from the various alcaldes indicate that there are 403 lepers on the island of Porto Rico.

While this number is believed to be in excess of the actual facts, nevertheless, if there were only a single hundred, they should be isolated and the community protected from this awful infection.

Very respectfully,

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

This was returned to the board for information as to arrangements at Battery Island, in answer to which the following indorsement was forwarded:

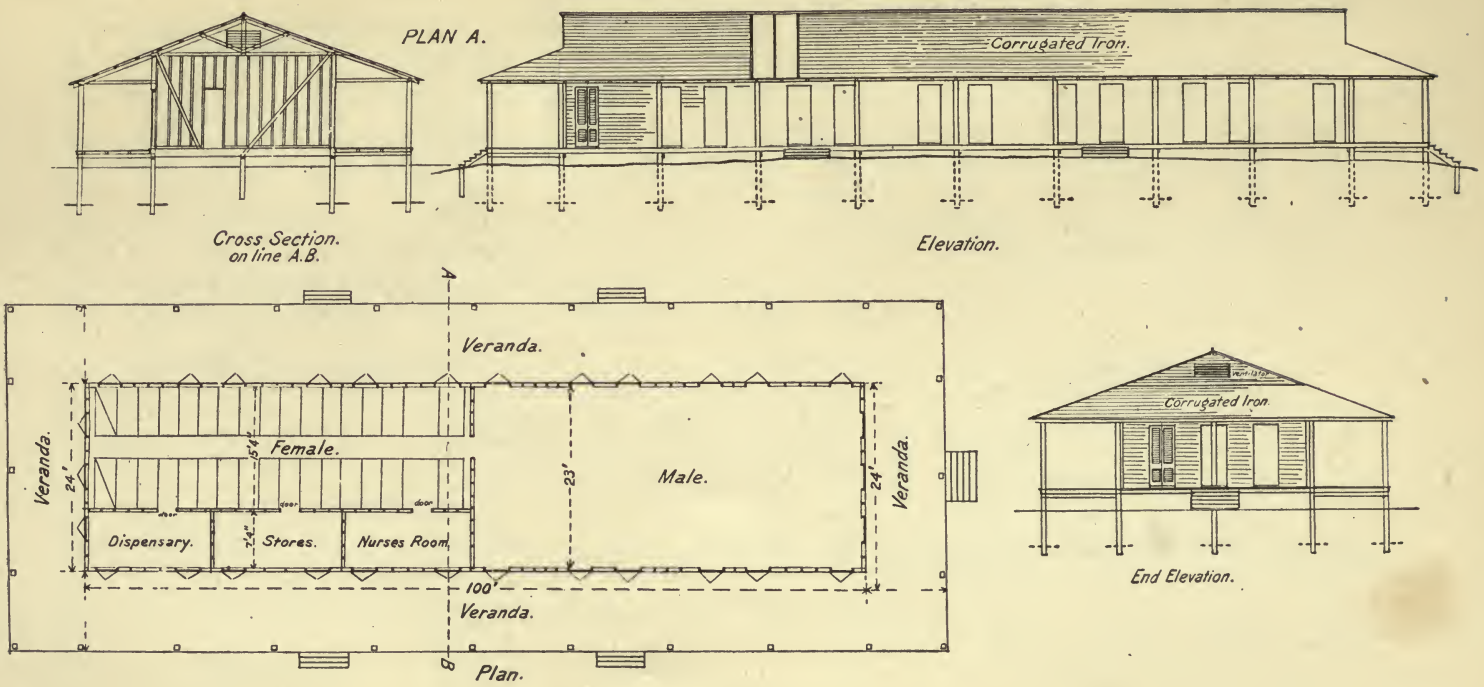
Respectfully returned to the adjutant-general Department of Porto Rico. It is understood that no buildings have yet been constructed, though plans and specifications were submitted. The object of this letter is to urge the construction of the necessary buildings at Battery Island.

By direction of the board of charities of Porto Rico:

JOHN VAN R. HOFF,
Major and Surgeon, U. S. A., President of Board.

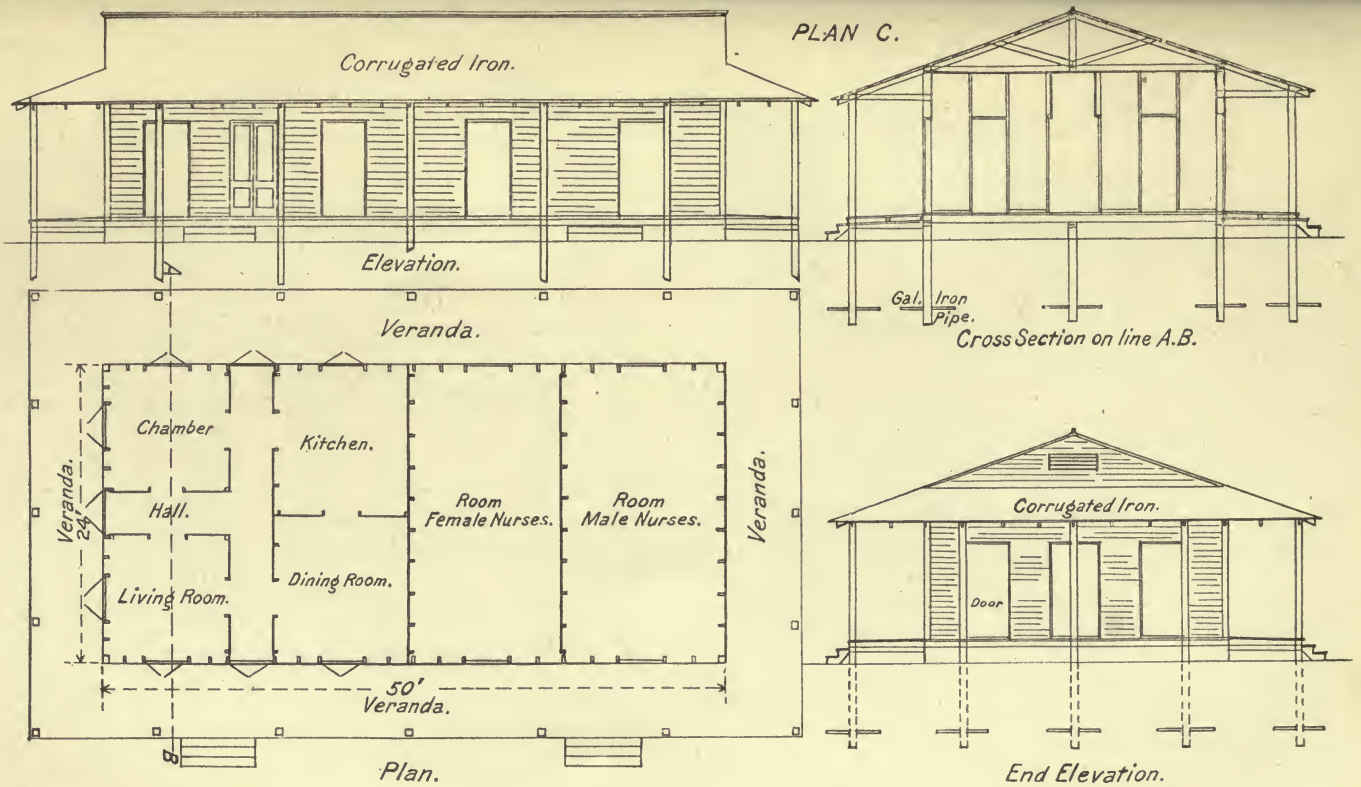
No further action was thereafter taken in this direction, either by this board or by the military governor, the latter having definitely decided that funds for the purpose could not be assigned.

Photographs of the plans, drawn by the board of public works and approved by this board, are appended.



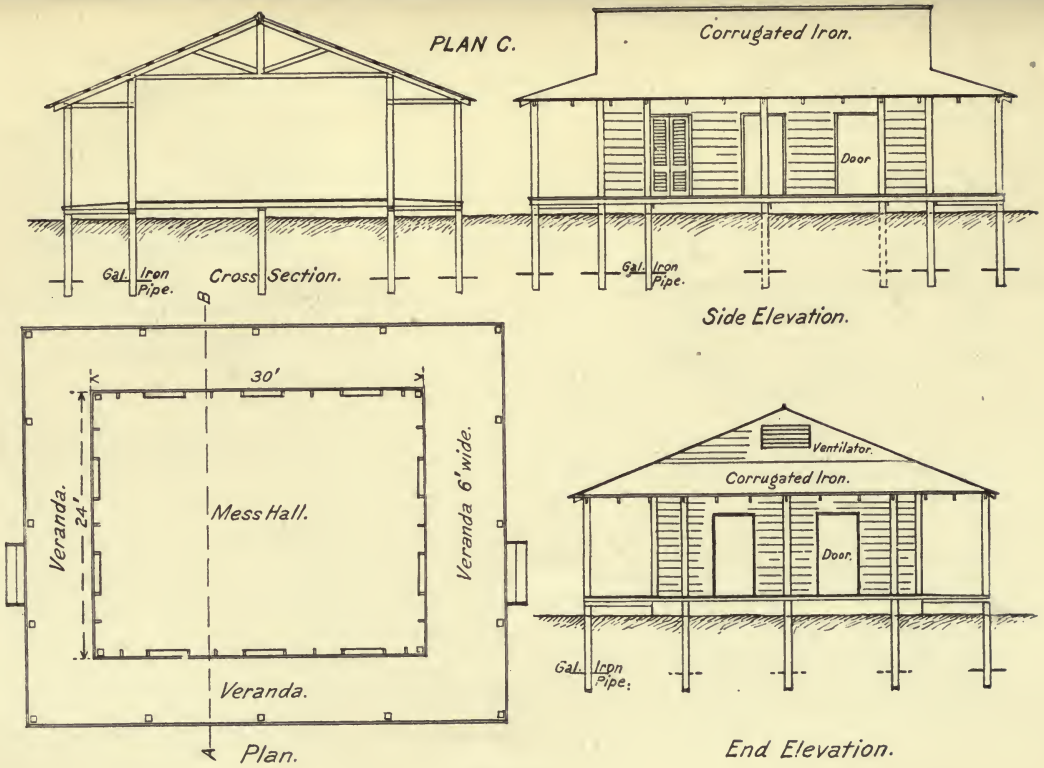
HOSPITAL.

PLANS OF BUILDING FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.



SUPERINTENDENT'S AND NURSES' QUARTERS.

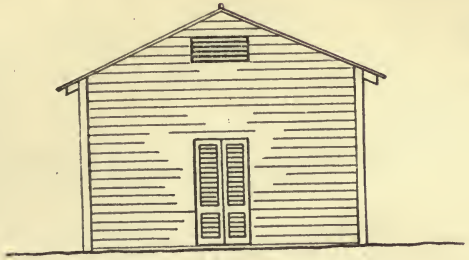
PLANS OF BUILDINGS FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.



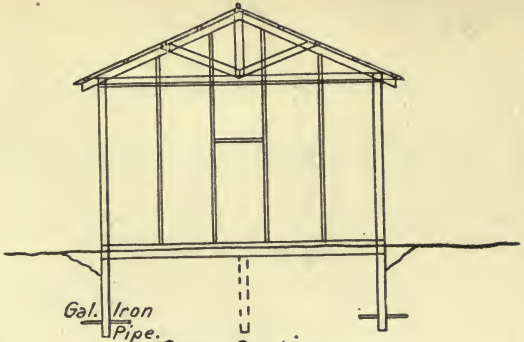
MESS HALL.

PLANS OF BUILDINGS FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.

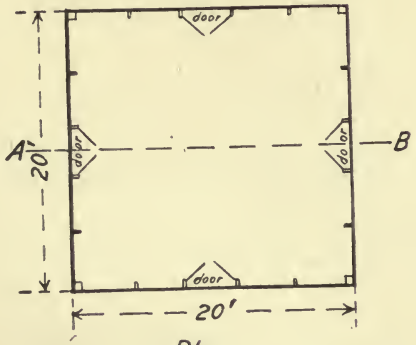
PLAN E.



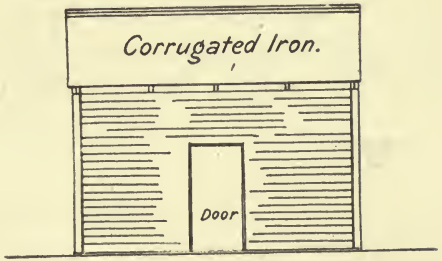
Front Elevation.



Cross Section.



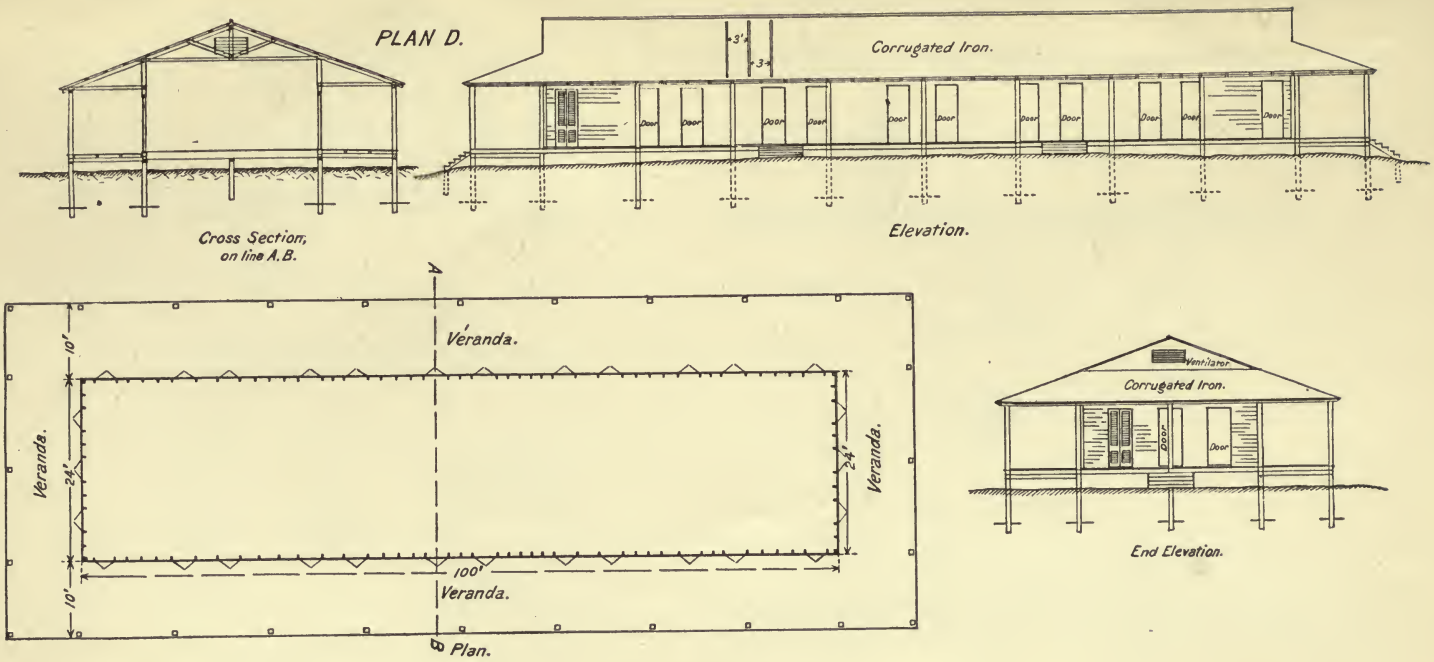
Plan.



Side Elevation.

KITCHENS.

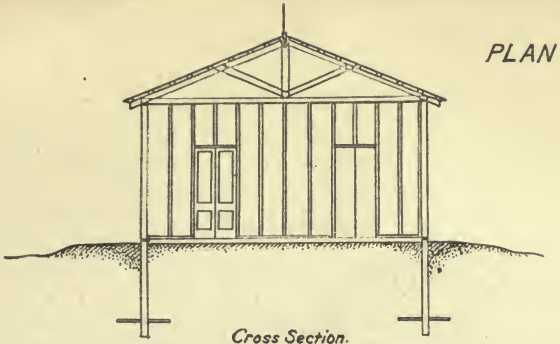
PLANS OF BUILDING FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.



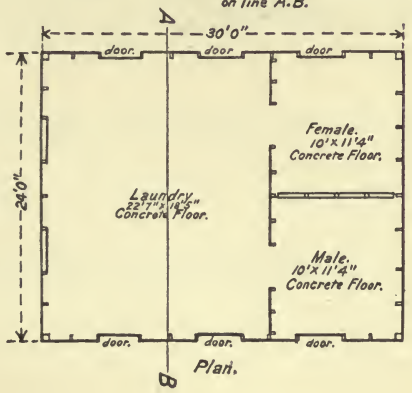
DORMITORY (4 PROPOSED).

PLANS OF BUILDING FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.

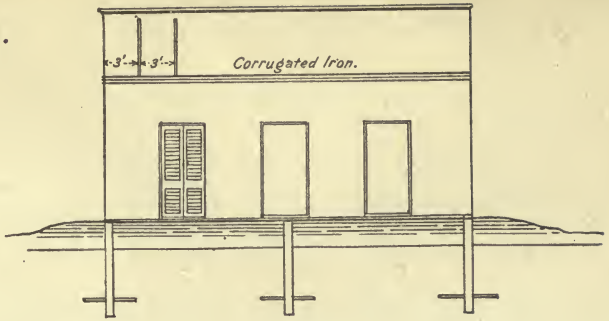
PLAN B.



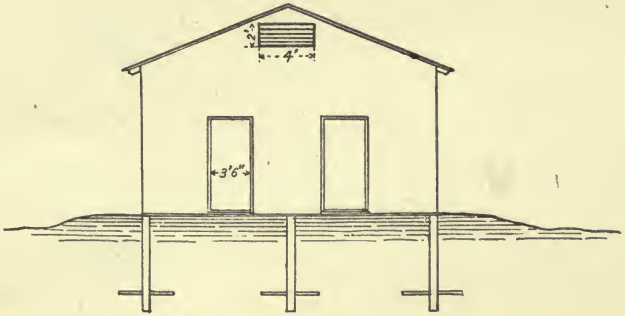
Cross Section.
on line A.B.



Plan.



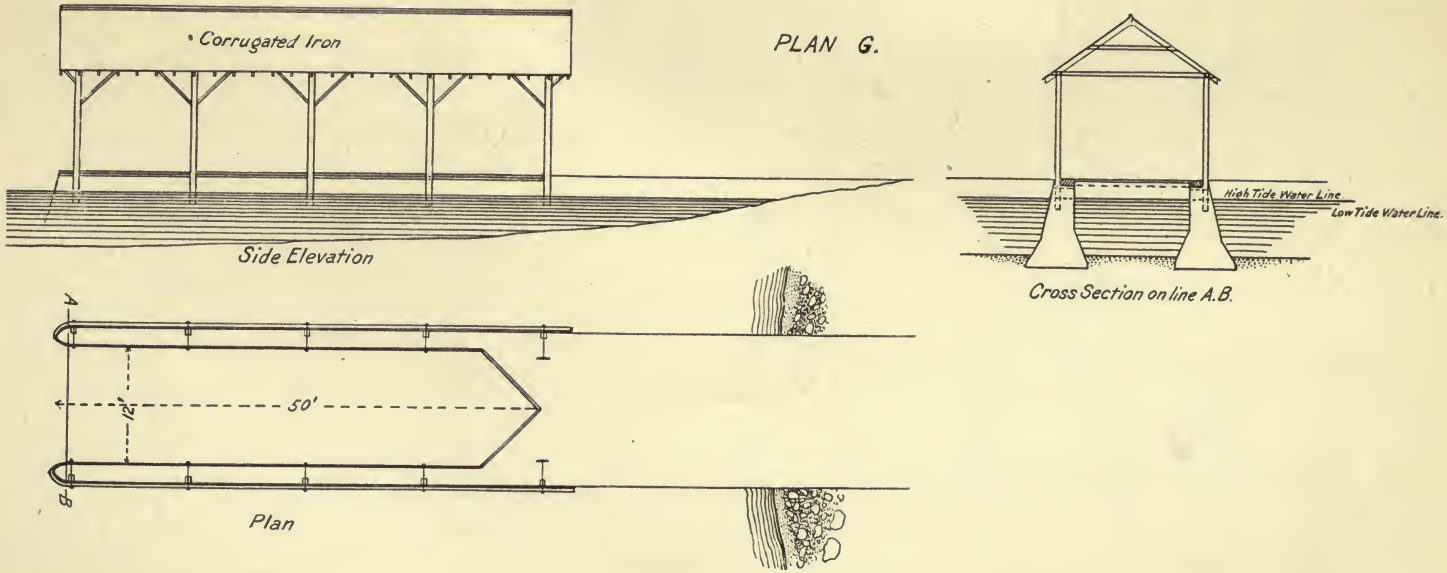
Side Elevation.



End Elevation.

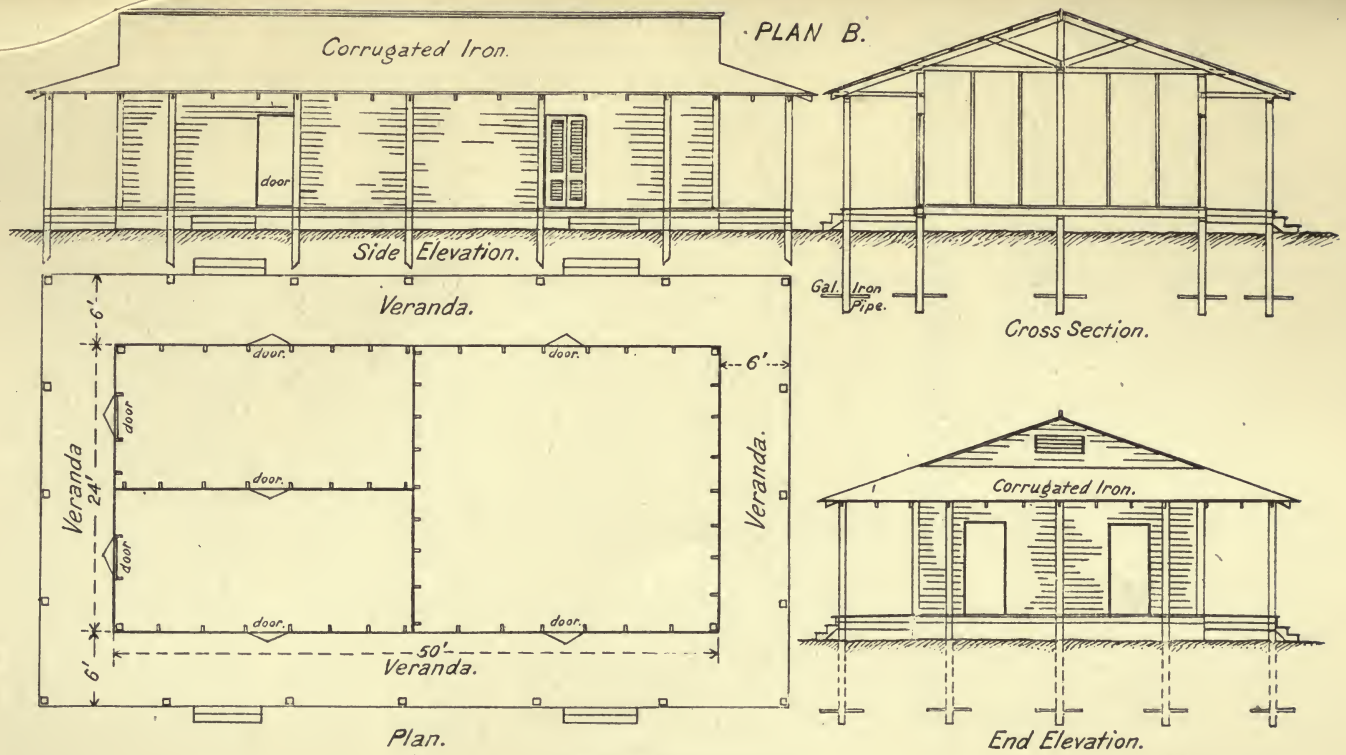
LAVATORY AND BATH HOUSE.

PLANS OF BUILDINGS FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.



WHARF.

PLAN OF WHARF AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.



ADMINISTRATION BUILDING.

PLANS OF BUILDINGS FOR PROPOSED LEPER COLONY AT PUNTA SALINAS, APPROVED BY THE BOARD OF CHARITIES.

The following gives the monthly status of inmates:

	Discharged.	Died.	Admitted.	Remaining.
May	----------	----------	12	[1]14
June	0	0	0	14
July	0	0	0	14
August	----------	----------	3	17
September	[2]3	1	2	15
October	0	0	0	15
November	0	0	1	16
December	0	0	0	16
January	0	0	0	16
February	0	0	2	18
March	0	0	0	18
April	[3]1	0	1	18

[1] Two cases remained from April.
[2] These three cases were, after a careful examination, declared not to be lepers.
[3] Under observation. Probably not leprosy.

REPORT OF THE CHAIRMAN OF THE COMMITTEE OF THE BENEFICENCIA OF THE BOARD OF CHARITIES UP TO MAY 1, 1900.

SAN JUAN, P. R., *July 20, 1900.*

PRESIDENT BOARD OF CHARITIES OF PORTO RICO,
San Juan, P. R.

SIR: I have the honor to submit the following report of the beneficencia for the time that the institution was under the charge of the first board of charities under American administration, from August, 1899, until May, 1900, at which time, in consequence of the change from military to civil government, a new board of charities was created.

The beneficencia, which comprised the "orphan asylum," now called "charity schools" and the insane asylum of Porto Rico, was placed under the control of the board of charities by the general order of the military governor which established that board. The orphan asylum was transferred from the control of the insular board of education, and the insane asylum from that of the superior board of health.

These two institutions, having been under the same roof since 1844, were found divided into four departments, viz, that of the male insane, that of the female insane, that of the orphan boys, and that of the orphan girls. All these departments were separate from each other; each had its own courtyard for the use of its inmates.

The term "orphan asylum" used in this connection is misleading. The children admitted into this institution are not alone full orphans and half orphans, but also children of poor parents who are unable to look out for them.

The management of the entire beneficencia was under the charge of one resident director. The internal administration was carried on by Sisters of Charity, under contract with the Spanish Government of 1863, and the following other personnel: One nonresident physician, 1 clerk, 1 practicante or head nurse, 5 male attendants for the insane men, 1 porter, 1 steward, laundresses, and servants. In the school there were, on the boys' side, 2 teachers and 1 monitor; on the girls' side the teaching was done by Sisters of Charity; the storerooms, mess rooms, dormitories, kitchen, laundry, dispensary, and the care of the sick and of the insane women were in the hands of the Sisters of Charity.

The building, "The Beneficencia," a heavily built brick structure, was at the time of transfer to this board without any modern sanitary arrangements; the woodwork in many places, especially floors and stairs, was rotten; there was no connection with the city water or sewer; the latrines everywhere were foul; the dormitories overcrowded; one wing in the insane asylum was in ruins from the bombardment of the previous year; at night large tubs and urinals were placed in the dormitories to receive the excreta of the inmates, etc.

It was evident from the first that the location of the institutions in the city of San Juan was most unsuitable. In their present form they represented nothing more than houses of detention. The object of changes in the building therefore limited itself to improvements in its sanitary condition and in keeping it up to its full capacity, in the hope of being able later to transfer the inmates to more suitable modern buildings to be erected somewhere on the island, preferably in the country, near a large town.

In the insane asylum the following work was accordingly done: Two annexes were erected, one in each department, to hold automatic self-flushing water-closets of the Mott system; wash basins, bath tubs, and shower baths; all drains from this annex were connected with the military sewer. The rotten floors in the cells on the women's side were relaid, and the drains of these cells likewise connected with the sewer; the destroyed wing was rebuilt; the city water introduced; the cesspools cleaned, emptied, and closed up; the court drains were led into the sewers; hose connections, with a sufficient length of rubber hose for the cleaning and flushing of cells, courts, and verandas, were provided; new stairways have taken the place of the old and rickety ones; one dormitory of the men's side has received new flooring. The result has been that the insane asylum is without its former glaring defects; the inmates are cleaner and less crowded than they were formerly.

In consequence of the additional space gained by the rebuilding of the destroyed wing and by the utilization of the former latrines for other purposes, it was made possible in the course of time to admit all the insane of the island for whose admission applications had been received. During the period comprised in this report about 74 people were admitted. Some of those applicants had been waiting for many months at their homes, in jails, in poorhouses, etc., for vacancies in the asylum. There they had been under most unfavorable conditions, often in close confinement, generally neglected, maltreated, etc., so that when finally admitted they were sick, covered with sores and vermin.

The number of attendants to the male insane was increased to 8, and the system of watches was carefully regulated on the male side by the medical superintendent and enforced.

On the female side of the house, which is more especially under the charge of the Sisters of Charity, who individually are controlled and directed by the superior of their order, a similar system of watches could not be introduced and enforced by the superintendent. The attending sisters are shifted about from one duty to another by orders of their own superiors, the question of "duty" and "off duty" is not decided by the superintendent and according to the requirements and necessities of the institution, as is done on the other side of the house, but is decided by the sister superior alone. This condition of affairs has led to a conflict of authority at the insane asylum in consequence of the position, which the board of charities had taken, in placing the

responsibility of the entire control of the institution into the hands of the superintendent, its official head. It is still one of the questions to be considered and to be settled in the future.

THE ORPHAN ASYLUM.

The same unsanitary conditions that were described in connection with the insane asylum prevailed here. Reforms along sanitary lines were urged in August, 1899; however, the financial distress of the island, which was experienced last year, prevented action in that direction, as desired. Under the personal supervision of the newly appointed and most efficient superintendent, Dr. Goenaga, many changes were made in the boys' department, which was in a worse condition than the girls' department, so that a better state prevailed subsequently. The city water was introduced; pan closets, on account of their cheapness, were put into the renovated former latrines; a urinal, having flushing arrangement, was added; a very primitive but effective system of shower baths was instituted; a water-filtering system was put into use; unnecessary bulkheads in the dormitories were removed, improving the air ventilation; the old practice of putting tubs and urinals into the dormitories over night for the reception of the excreta of the children was stopped, etc.

In the girls' department no changes of any consequence were made.

Early in this year both these institutions were removed to Santurce, to separate buildings, which, although in very unsatisfactory sanitary condition, offer excellent possibilities for the future. Both have very extensive grounds, allowing of enlargement of buildings.

The schools of the Beneficencia were in a very disorganized condition after the war. For over 230 boys there were only 2 teachers; the trade and art schools had been discontinued; the building which had contained the shops had burned down; a great part of the machinery, tools, and appliances which it contained were either burned up or had been ruined by the flames. Machinery and tools which were left were gathered, cleaned, and put into a storeroom under the charge of a special employee. As soon as possible the following three departments of the trade school were reopened, namely: The carpenter shop, the tailor shop, and the shoemaker shop. To each mechanic in charge of a shop a number of boys were given for assistance and instruction.

Bancroft Library

It had been the intention of the committee to divide the pupils on the boys' side into four classes of about 50 pupils each, to place each class in charge of one teacher, and, according to the attainments of the pupil, to give each class its special curriculum. Heretofore all the pupils had been taught together in the same class room by one teacher and an assistant. In order to get the necessary qualified additional teachers, applicants for positions were solicited through the official gazette. Of the number of applicants only one was found qualified and appointed. At about this time the assistant teacher resigned, leaving again only two instructors for the school. The division into four sections was, nevertheless, accomplished, the teachers being obliged to go from section to section to give their lessons. Later, by the appointment of an English-speaking teacher, lessons in English were added to the course of instruction in each class. For the younger children, below the age of eight, a kindergarten teacher was engaged, who taught that class in the forenoon; the same teacher

gave instruction in English to the other girls in the afternoon. Necessary books were supplied by the insular board of instruction.

On account of the difficulty of properly taking care of the older inmates of the orphan asylum under the above-mentioned conditions, and especially as serious immoral practices among them had come to the attention of the superintendent, it was decided to discharge all beneficiaries who had passed the age of sixteen. The guardians of these children were communicated with and requested to take charge of their wards. For a few of these children positions were secured.

In consequence of this change it was possible to somewhat relieve the overcrowded state of the asylum. Subsequent vacancies were primarily filled by admitting all the full orphans who had applied for admission. Some applications of this kind had been unattended to for four or five years. At the time of the transfer of the children to Santurce all the new and old applications of this class had been attended to.

Since the transfer to Santurce early this year, the direction of affairs of the orphans has been more in the hands of the president of the board than in those of the committee.

This transfer to Santurce has put us in position to use that part of the building which the girls had formerly occupied and is adjacent to the insane asylum for the insane women, and to fit up the entire old insane asylum building for the accommodation of the men. This change had to be commenced by day labor, under the personal direction of the superintendent, and will not be as perfect as had been planned by the committee. However, it will be an advance, as regards former conditions. A number of the less violent cases of the insane women have been transferred to the new quarters already, but in the absence of the necessary cells for the control of the violent insane, the old quarters can not yet be given up entirely.

The necessity of an assistant physician for the insane asylum had been recognized by the board for some time. An attempt was made some time ago to fill this position. A committee was appointed by the board of charities to examine applicants for that position, as is done in the United States when hospital positions are to be filled. The conditions of appointment were published, but no applicants appeared. The inducements offered to a young graduate in medicine, with the experience to be gained in this specialty, certainly seemed sufficient, and the failure to accomplish our object seemed incomprehensible.

The present director of the insane asylum had been connected with the old Beneficencia for a number of years as its medical attendant. Last year, when a change of director appeared advisable, he was considered the man best adapted to fill that position. Subsequent events have justified that belief. After the complete separation of the insane from the orphan asylum he was given the position of director of the insane asylum.

No medical records were formerly kept at the insane asylum. A full set of report and record forms have been provided, so that now registers of patients, case papers, and reports to the board can be made and kept.

The regulations of the insane asylum and also those of the charity schools have been revised, and if enforced by able directors the administration of these institutions will be more systematic and efficient than it was formerly.

It is to be hoped that in the near future a modernly equipped insular insane asylum, having extensive grounds that can be used for cul-

tivation, may be erected somewhere on the island, where the insane can be employed according to their condition, and where more can be done for their cure than is possible under existing conditions.

Very respectfully,

F. W. F. WIEBER,
Surgeon, U. S. Navy, Chairman.

Statistics of inmates of Beneficencia for years from 1844 to 1889.

	1844–45.					1845–46.					1846–47.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	-----	42	8	7	27	27	10	5	1	31	31	1	----	----	32
Female	-----	16	1	3	12	12	7	----	----	19	19	2	1	----	20
Prisoners:															
Male	-----	----	----	----	----	-----	39	34	----	5	5	-----	1	----	4
Female	-----	22	3	----	19	19	2	17	1	3	3	6	4	1	4
Total	-----	80	12	10	58	58	58	56	2	58	58	9	6	1	60

	1847–48.					1848–49.					1849–50.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	32	6	----	----	38	38	3	1	----	40	40	2	1	----	41
Female	20	6	2	----	24	24	1	----	----	25	25	6	----	----	31
Prisoners:															
Male	4	13	5	1	11	11	7	5	----	13	13	1	1	----	13
Female	4	-----	1	----	3	3	4	3	----	4	4	-----	2	----	2
Total	60	25	8	1	76	76	15	9	----	82	82	9	4	----	87

	1850–51.					1851–52.					1852–53.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	41	5	----	----	46	46	10	1	----	55	55	12	2	2	63
Female	31	5	----	----	36	36	2	----	----	38	38	7	----	----	45
Prisoners:															
Male	13	3	1	----	15	15	2	----	----	17	17	3	----	----	20
Female	2	3	2	----	3	3	-----	----	----	3	3	-----	1	----	2
Total	87	16	3	----	100	100	14	1	----	113	113	22	3	2	130

Statistics of inmates of Beneficencia for years from 1844 to 1899—Continued.

	1853–54.					1854–55.					1855–56.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	63	27	10	5	75	75	23	3	3	92	92	23	12	6	97
Female	45	9	4	5	45	45	8	2	3	48	48	8	1	4	51
Prisoners:															
Male	20	7	3	....	24	24	11	7	....	28	28	3	7	....	24
Female	2	4	....	....	6	6	....	....	....	6	6	....	....	....	6
Total	130	47	17	10	150	150	42	12	6	174	174	34	20	10	178

	1856–57.					1857–58.					1858–59.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	97	18	9	6	100	100	18	11	4	103	103	17	7	9	104
Female	51	16	2	2	63	63	10	5	3	65	65	17	8	6	66
Prisoners:															
Male	24	3	7	....	20	20	1	....	....	21	21	4	3	....	22
Female	6	....	....	....	6	6	....	....	....	6	6	....	....	....	6
Total	178	37	18	8	189	189	29	16	7	195	195	38	18	15	198

	1859–60.					1860–61.					1861–62.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	104	24	3	9	116	116	11	2	5	120	120	3	1	....	122
Female	66	7	5	2	66	66	4	1	2	67	67	....	2	....	65
Boys	....	....	....	....	....	....	....	....	....	....	....	58	15	....	43
Girls	....	....	....	....	....	....	....	....	....	....	....	6	....	....	6
Prisoners:															
Male	22	8	2	....	28	28	8	7	....	29	29	7	9	....	27
Female	6	....	1	....	5	5	....	....	....	5	5	1	....	....	6
Paupers, male	....	....	....	....	....	....	1	....	....	1	1	....	....	....	1
Total	198	39	11	11	215	215	24	10	7	222	222	75	27	....	270

	1862–63.					1863–64.					1864–65.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	122	9	....	....	131	131	8	4	....	135	135	6	2	1	138
Female	65	3	....	....	68	68	9	....	....	77	77	5	4	1	77
Boys	43	16	15	....	44	44	17	14	2	45	45	14	15	1	43
Girls	6	17	7	....	16	16	8	8	....	16	16	1	3	2	12
Prisoners:															
Male	27	1	1	....	27	27	1	1	....	27	27	....	....	....	27
Female	6	....	....	....	6	6	....	....	....	6	6	....	....	....	6
Paupers, male	1	....	....	....	1	1	....	....	....	1	1	....	....	....	1
Total	270	46	23	....	293	293	43	27	2	307	307	26	24	5	304

Statistics of inmates of Beneficencia for years from 1844 to 1889—Continued.

	1865–66.					1866–67.					1867–68.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	138	6	2	1	141	141	7	----	----	148	148	10	36	34	88
Female	77	1	1	----	77	77	3	----	----	80	80	10	12	16	62
Boys	43	19	20	1	41	41	12	18	----	35	35	18	11	----	42
Girls	12	7	3	----	16	16	7	2	1	20	20	11	9	2	20
Prisoners:															
Male	27	----	----	----	27	27	----	----	----	27	27	1	----	----	28
Female	6	----	----	----	6	6	----	----	----	6	6	----	----	----	6
Paupers:															
Male	1	----	----	----	1	1	----	----	----	1	1	----	----	----	1
Female	----	----	----	----	----	----	----	----	----	----	----	1	----	----	1
Total	304	33	26	2	309	309	29	20	1	317	317	51	68	52	248

	1868–69.					1869–70.					1870–71.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	88	30	12	10	96	96	23	17	10	92	92	38	66	43	21
Female	62	32	16	15	63	63	10	2	10	61	61	12	8	13	52
Boys	42	14	10	----	46	46	12	7	2	49	49	18	13	2	52
Girls	20	15	3	----	32	32	8	10	----	30	30	7	5	2	30
Prisoners:															
Male	28	1	2	1	26	26	----	----	----	26	26	----	3	1	22
Female	6	----	----	----	6	6	----	----	----	6	6	1	----	----	7
Paupers:															
Male	1	1	----	----	2	2	----	----	----	2	2	----	----	----	2
Female	1	3	----	----	4	4	----	----	----	4	4	1	----	----	5
Total	248	96	43	26	275	275	53	36	22	270	270	77	95	61	191

	1871–72.					1872–73.					1873–74.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	21	23	26	10	8	8	14	12	1	9	9	31	1	4	35
Female	52	22	19	8	47	47	21	17	----	51	51	20	13	2	56
Boys	52	51	13	----	90	90	11	13	----	88	88	77	46	1	118
Girls	30	41	10	1	60	60	12	8	----	64	64	64	33	3	92
Prisoners:															
Male	22	----	12	2	8	8	----	6	2	----	----	----	----	----	----
Female	7	----	2	1	4	4	----	1	----	3	3	----	2	----	1
Paupers:															
Male	2	5	3	----	4	4	2	1	2	3	3	2	1	----	4
Female	5	19	14	----	10	10	4	3	2	9	9	5	3	3	8
Total	191	161	99	22	231	231	64	61	7	227	227	199	99	13	314

Statistics of inmates of Beneficencia for years from 1844 to 1889—Continued.

	1874–75.					1875–76.					1876–77.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	35	29	4	10	50	50	28	19	15	44	44	43	21	15	51
Female	56	16	7	2	63	63	15	8	18	52	52	23	6	11	58
Boys	118	25	31	----	112	112	28	16	6	118	118	29	16	1	130
Girls	92	18	8	2	100	100	20	21	6	93	93	33	14	3	109
Prisoners, female	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----
Paupers:															
Male	4	2	1	----	5	5	1	2	----	4	4	3	1	1	5
Female	8	5	----	3	10	10	5	2	5	8	8	6	1	4	9
Total	314	95	52	17	340	340	97	68	50	319	319	137	59	35	362

	1877–78.					1878–79.					1879–80.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	51	29	20	26	34	34	33	10	11	46	46	54	27	17	59
Female	58	17	7	13	55	55	17	7	6	59	59	27	11	22	53
Boys	130	17	7	3	137	137	25	15	1	146	146	19	11	2	152
Girls	109	20	12	1	116	116	15	10	4	117	117	6	4	2	117
Paupers:															
Male	5	1	----	1	5	5	2	1	1	5	5	----	1	----	4
Female	9	2	2	2	7	7	3	1	----	9	9	1	----	4	6
Total	362	86	48	46	354	354	95	44	23	382	382	107	54	47	388

	1880–81.					1881–82.					1882–83.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	56	38	20	12	62	62	52	29	27	58	58	46	24	21	59
Female	53	22	13	10	52	52	26	19	4	55	55	28	18	12	53
Boys	152	29	20	1	160	160	30	38	1	151	151	20	12	----	159
Girls	117	23	20	3	117	117	26	16	2	125	125	14	10	2	127
Paupers:															
Male	4	----	----	----	4	4	----	----	----	4	4	3	1	----	6
Female	6	----	----	3	3	3	----	----	----	3	3	1	1	----	3
Total	388	112	73	29	398	398	134	102	34	396	396	112	66	35	407

Statistics of inmates of Beneficencia for years from 1845 to 1889—Continued.

	1883–84.					1884–85.					1885–86.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	59	39	20	15	63	63	42	27	13	65	65	33	21	11	66
Female	53	34	9	21	57	57	42	19	28	52	52	36	12	16	80
Boys	159	18	21	3	153	153	15	11	1	156	156	24	20	2	158
Girls	127	16	19	2	122	122	29	19	1	131	131	13	15	----	129
Paupers:															
Male	6	-----	-----	----	6	6	-----	1	1	4	4	-----	-----	----	4
Female	3	-----	1	----	2	2	-----	----	----	2	2	-----	----	----	2
Total	407	107	70	41	403	403	128	77	44	410	410	106	68	29	419

	1886–87.					1887–88.					1888–89.				
	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.	Remaining.	Admitted.	Discharged.	Died.	Remaining.
Insane:															
Male	66	35	14	20	67	67	39	19	20	67	67	38	20	17	68
Female	60	23	7	16	60	60	17	8	9	60	60	21	9	13	59
Boys	158	26	27	1	156	156	33	32	1	156	156	17	18	----	155
Girls	129	11	9	2	129	129	23	17	3	132	132	16	10	6	132
Paupers:															
Male	4	1	1	1	3	3	-----	-----	-----	3	3	-----	-----	-----	3
Female	2	1	----	----	3	3	-----	-----	-----	3	3	-----	-----	-----	3
Total	419	97	58	40	418	418	112	76	33	421	421	92	57	36	420

Recapitulation for Beneficencia from 1844 to 1900.

Class.	Admissions.	Discharges.	Deaths.	Remaining.
Insane, male	1,336	676	582	78
Insane, female	866	377	431	58
Boys	1,164	1,115	49	----------
Girls	779	694	85	----------
Prisoners, male	124	117	7	----------
Prisoners, female	43	40	3	----------
Paupers, male	30	23	7	----------
Paupers, female	71	41	29	1
Total	4,413	3,083	1,193	137

CONCLUSION.

INSTITUTIONS.

From the foregoing it will be seen that for the short time the insular charitable institutions were under the direction of this board, during the military government, the following was accomplished:

First. The boys and girls, orphaned and destitute children, were transferred from the building known as the Beneficencia, which was in effect a prison, and indeed was originally built for this purpose, to separate and commodious buildings, located in Santurce and surrounded by ample grounds.

[a] The boys and girls having been transferred to the schools in Santurce and not here included.

Second. The board prepared a code of regulations based upon the changed conditions of the government, reorganized the administration in the boys' school on business principles, introduced military instruction, and was about to effect a complete reorganization in the educational departments of both schools when the functions of military government ceased by limitation of law.

Third. It repaired the insane asylum and largely increased its accommodations, so that now there is no waiting list.

Fourth. It prepared new regulations for the asylum and instituted a new system of interior economy, placing the institution upon a scientific and business foundation.

Fifth. It submitted plans and specifications for the organization of a leper colony at Punta Salinas, and urged the necessity for the assembling there, and complete isolation, of all lepers in Porto Rico. In the meantime it has cared for the 18 lepers now inadequately housed and isolated at Puerta de Tierra.

Sixth. It proposed the organization of a house of correction for incorrigible children, for which a part of the Beneficencia building was to be used, and finally,

Seventh. It met the many situations constantly arising in the management of public charities and charitable institutions.

The membership of the first board of charities of Porto Rico was in large part made up from medical officers of the public services, who devoted themselves to the accomplishment of the unfamiliar tasks which fell to their lot. The military government is especially indebted to—

Surg. F. W. F. Wieber, United States Navy, who, as chairman of the committee on the Beneficencia and lunatic asylum, gave a large part of his time to this work, and was very successful in his supervision of these important institutions. He was also a member of the executive committee of the board.

Capt. George M. Wells, Medical Department, United States Army, who was chairman of the committee on the leper hospital, and member of the committee on the Beneficencia and insane asylum.

Dr. H. W. Cowper, acting assistant surgeon, who acted as inspector for the board during the period of the removal of the children from the Beneficencia, and their settlement in the charity schools at Santurce.

I desire to express my personal indebtedness to Mr. B. H. Osterhoudt, the present able secretary of the board of charities of Porto Rico, for his work under the old board in reorganizing the supply department, and for present assistance in the preparation of statistics; also to Dr. Harold W. Cowper for absolutely essential help in the arduous work of preparing this report.

In submitting the foregoing report of the efforts and accomplishments of the board of charities of Porto Rico under the military government, I venture to invite attention to the fact that much of it has been written under the stress of orders calling me to other lands and duties. At best it is a plain, unvarnished tale, neither worthy of the subject nor of the noble men and women whose work it relates.

Very respectfully,

JOHN VAN R. HOFF,
Major, Surgeon, U. S. A.; Chief Surgeon,
Department of Porto Rico, and former
President of the Board of Charities of Porto Rico.

INDEX.

REPORT OF THE SUPERIOR BOARD OF HEALTH.

	Page.
Anæmia:	
Prevalence by municipal districts, 1890–1899	84–97
Total deaths and percentages, 1898–99 (table)	99
Special report	120
Animals, diseased: Regulations	62
Ankchylostomiasis:	
By Lieut. Bailey K. Ashford, Med. Dept. U. S. A	121
"Prevalence of parasite," by Lieut. F. F. Russell, Med. Dept. U. S. A	125
Arecibo: Sanitary survey and photos	169
Bacteriological institute: Committee report on, adverse	42
Births. (See Vital statistics.)	82, 115
Blind: Number and causes	130
Blindness: Prevention of, regulations	61
Boards of health, local:	
Established	64
Report, San Juan	159
Report, Ponce	163
Burials, disinterments, etc.: Regulations	70
By-laws: Of superior board of health	36
Cemeteries: Regulations	66
Chemical laboratory: Report of work	136
Chemist: Report of	136
Climate	117
Committees of superior board:	
Temporary	14
Permanent	21
Conclusions	133
Constitution of superior board:	
Under Spanish rule, 1897	7
Under United States, 1899	8
Consolidated report, Vital Statistics, October, 1899, to April, 1900	101–114
Contagious and infectious diseases: Regulations	57
Crypts under certain churches: Committee report	48
Deaths. (See Vital statistics.)	83–115
Dentistry:	
Examinations	55
Licensing	56
Penalties	56
Diphtheria:	
Prevalence by municipal districts, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (table)	99
Disbursements	9
Diseases	117
Disinterment of bodies:	
Committee report	48
Regulations	70
Dissection and autopsies: Regulation proposed but not promulgated	81
Duties and powers, superior board: General Orders defining	12
Dysentery:	
Prevalence by municipal districts (tables), 1890–1899	84–99
Total deaths and percentages, 1890–1899 (tabulated)	99
Special report	119
Examining committee:	
Receipts and disbursements	10
Report	135
Executive committee report	41

	Page.
Fee bill, medical and surgical: Regulation	50
Food and drug adulteration:	
Regulations	52
Penalties	53
Garbage dump, San Juan: Committee report	42
Hurricane:	
Report on	139
History of, prior	139
Insane asylum, San Juan:	
Under superior board of health	9
Recommendations	40
Committee reports	35, 37
Committee report on projected removal to Santurce	38
Passes under control of board of charites	9
Inspection, house to house: Proposed	73
Leper hospital, San Juan:	
Under control of board	9
Committee report	39
Committee report recommending leper station on San Luis (Penar) Island	39
Under board of charities	20
Lepers: Report on	129
Licenses and permits:	
Regulations proposed but not promulgated	71
Receipts and disbursements	10
Lodging houses, hotels, etc.: Regulations proposed but not promulgated	73
Malarial diseases: Special report	126
Marriages. (See Vital statistics.)	82
Meat inspection: Regulations	66
Medicine and surgery:	
Subdelegation of committee on	45
Subdelegation, history of	149
License to practice, regulations	55
Penalties	56
Examinations. (See Examining committee.)	135
Examinations, regulations	55
Meningitis:	
Prevalence of, in municipal districts, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (tabulated)	99
Meteorological table for year 1899–1900	117
Midwife or trained nurse: Licensing	55
Minutes of superior board	12–35
Municipal physicians: Regulations	65
Nuisances: Abatement of	68
Office and laboratory receipts and disbursements	10
Organization superior board of health	8
Patent medicines: Regulation of sale	53
Pharmacy:	
Courses in	47
Subdelegation committee	55
Subdelegation history	154
Regulation of examinations	55
Licensing	55
Penalties	57
Regulations	55–57, 64
Plumbing regulations proposed, but not promulgated	76
Ponce board of health report	163
Ponce, special report	166
Pregnant cattle:	
Meat as food	43
Restriction of slaughter	67
Prostitution, regulation of:	
Committee report	46
Decree concerning, in the province of Habana under Spanish rule (translation)	47
Public institutions: Regulations proposed, but not promulgated	72
Quarantine station	20

	Page.
Quarantine, interior:	
Committee on	21
Regulations	57
Committee report on	143
Receipts	9
Regulations:	
Promulgated	52–70
Résumé of same	133
Proposed	71–81
Résumé of same	134
Reports, committees	135–143
Reports, health officer, etc.: Regulations requiring	58
Respiratory diseases, acute	118
San Francisco barracks: Committee report on proposed use as jail	44
Sanitation in Porto Rico, history of	144
San Juan:	
Water supply	49
Board of health report	159
School hygiene: Regulations proposed, but not promulgated	72
Sewerage: Regulations proposed, but not promulgated	75
Slaughterhouses: Regulations proposed, but not promulgated	74
Smallpox:	
Prevalence in municipalities, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (tabulated)	99
Special report	117
Statistics	83
Tenement houses: Regulations proposed, but not promulgated	73
Tetanus:	
Prevalence by municipal districts, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (table)	99
Special report	118
Subdelegation of Medicine and Surgery, History	149
Subdelegation of Pharmacy, History	154
Trades	74
Tuberculosis:	
Prevalence by municipal districts, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (table)	99
Special report	118
Typhoid fever:	
Prevalence of, in municipalities, 1890–1899	84–99
Total deaths and percentages, 1890–1899 (tabulated)	99
Vaccination:	
Regulations	59, 63
Report on	131
Vaccine station:	
Established	23
Regulations	23
Receipts and disbursements	11
Report	17
Venereal diseases: Increase, etc	126
Vital statistics:	
Method of collection	82
Death ratios, 1890–1899	83, 115
Prevalence of certain diseases in each municipality, 1890–1899	84–97
Table of deaths from certain diseases, and ratios, 1890–1899	98
Zymotic mortality	98
Consolidated reports, by months, for island	99
Births	115
Tables, births, marriages, and deaths, 1888–1898	115
Water supply, public:	
Regulations proposed, but not promulgated	71
Committee report on	141
Water supply, San Juan: Committee report on	49
Yellow fever:	
Isolation regulations	59
Prevalence in municipal districts, 1890–1899	84–97
Total deaths and percentages, 1890–1899 (tabulated)	98

INDEX.

REPORT OF THE BOARD OF CHARITIES OF PORTO RICO FOR THE PERIOD ENDING JUNE 30, 1900, EMBRACING THE WORK OF PORTO RICO RELIEF.

Page.

Accounts, statement of 179–195
Adjuntas, relief district of:
  Depot established 206
  Disbursements 182
  Report 215
Administration, outline of 225
Aguadilla, relief district of:
  Disbursements 181
  Report 211
Aibonito, relief district of:
  Depot established 206
  Disbursements 182
  Report 208
Arecibo, relief district of:
  Disbursements 182
  Report 215
Arroyo, relief district of:
  Depot established 206
  Audit of accounts—report 196
Bayamon, relief district of, depot established 206
Beneficencia (insane and orphan asylum):
  Finances 179
  Statistics 347
  Reports 324, 325, 343
  Institutional work 319–352
Board of Charities:
  Relief work 179–315
  Administration 225
  Office expenses, monthly 179
  Organization 299
  Regulations for relief 302–311
  Of municipalities 237
Caguas, relief district of, depot established 206
Cayey, relief depot of 206
  Disbursements 182
  Report 208
Central Relief Committee in United States 279
Charity schools (*see also* Beneficencia) 319
  Monthly expenses 179
  Statistics 337
  For girls, committee report 329
  Chairman's report 343
  Contributors 288, 291
  Conclusions 295, 351
Deaths, by months, in each municipality 245
Disbursements:
  By districts 181
  By months 182
  From Customs fund 186

Distributions: Page.
Food and clothing ... 192
General supplies ... 193
Moneys received and spent on account of (by months) ... 182
Economic conditions:
Prior to August 8, 1899 (date of hurricane) ... 199
Subsequent to August 8, 1899 ... 205
General view ... 206
Estimate of food required ... 301
Fajardo, relief district of, depot established ... 203
Guanica, relief district of, depot established ... 303
Hospitals—their relation to relief ... 271
Reports on ... 272
United States Provisional, at Ponce ... 274
Humacao, relief district of:
Disbursements ... 181
Report ... 208, 249
Conditions in subdepot, Yabucoa ... 208
Hurricane:
History of ... 204
Damage by, reports ... 207–224
Insane asylum (*see also* Beneficencia) ... 320
Monthly expenses ... 179
Estimate of expenses, 1899–1900 ... 323
Committee report ... 334
Improvements ... 326
Statistics ... 335–347
Lares, relief district of:
Disbursements ... 181
Report ... 207
Leper hospital ... 338
Monthly expenses ... 179
Report ... 339
Manati, relief district of:
Depot established ... 206
Disbursements ... 181
Report ... 209
Mayaguez, relief district of:
Depot established ... 206
Disbursements ... 181
Report ... 212, 220, 224
Medical supplies distributed ... 278
Military posts in Porto Rico at date of hurricane ... 206
Orphan asylum (*see also* Beneficencia and Charity schools):
Monthly expenses ... 179
Estimate of expenses, 1899–1900 ... 323
Committee reports ... 345
Planters' relief:
Applications (tabulated) ... 269
System of ... 246
Contracts used ... 252
Unworthy cases ... 254
Results ... 268
Ponce, relief district of:
Depot established ... 206
Disbursements ... 182
Report ... 210
Population, statistics ... 188
Relief districts organized ... 206–303
History of work in ... 244
Relief fund:
Disbursements by districts ... 181
Monthly receipts and disbursements ... 182
List of contributors ... 291
Disbursements from customs fund ... 186
Auditor's report ... 196

Page.
Relief of hurricane sufferers:
Organization 299
Necessity for continuance 257
Outline of methods 206
Recommendation for discontinuance 259
Progress 312
Results of relief work 295
Ships 288
San German, relief district of:
Depot established 206
Disbursements 182
Report 214, 224
San Juan:
Depot established 206
Disbursements 182
Sisters of Charity 357
Special mention 297
Supplies:
Received by different ships 187, 242
Received and issued (tabulated) 188
Moneys handled in connection with distribution of (by months) 182
Supply depot general, San Juan; report of officer in charge 187, 239
Vital statistics 245
Woman's Aid Society, P. R 289

APPENDICES.

Preliminary report, Board of Charities 298
Report of progress, Board of Charities 312

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